



AGRICULTURE SECTOR

ANNUAL BUDGET MONITORING REPORT

FINANCIAL YEAR 2019/20

NOVEMBER 2020

Ministry of Finance, Planning and Economic Development
P.O. Box 8147, Kampala
www.finance.go.ug

MOFPED
#DoingMore



AGRICULTURE SECTOR

ANNUAL BUDGET MONITORING REPORT

FINANCIAL YEAR 2019/20

NOVEMBER 2020

MOFPED
#DoingMore

TABLE OF CONTENTS

ABBREVIATIONS.....	iii
FOREWORD	vii
EXECUTIVE SUMMARY.....	viii
CHAPTER 1: INTRODUCTION.....	1
1.1 Background.....	1
1.2 Sector Objectives	1
CHAPTER 2: METHODOLOGY.....	2
2.1 Scope	2
2.2 Methodology.....	2
2.3 Limitations of the report	3
CHAPTER 3: SECTOR PERFORMANCE.....	4
3.1 Overall Sector Performance.....	4
3.2 Agricultural Credit Facility	5
3.3 Cotton Development Organisation.....	10
3.3.1 Introduction	10
3.3.2 Headquarters.....	11
3.3.3 Cotton Production Improvement.....	12
3.4 Dairy Development Authority.....	15
3.4.1 Introduction	15
3.4.2 Headquarters.....	15
3.4.3 Dairy Market Access and Value Addition	17
3.5 Local Governments.....	20
3.5.1 Introduction	20
3.5.2 Performance	20
3.5.3 Challenges	22
3.5.4 Recommendations	23
3.6 Ministry of Agriculture, Animal Industry and Fisheries	34
3.6.1 Background	23
3.6.2 Enhancing National Food Security Through Increased Rice Production in Eastern Uganda ...	23
3.6.3 National Oil Palm Programme	24
3.6.4 Uganda Multi-sectoral Food Safety and Nutrition Project.....	27

3.6.5	Department of Agricultural Extension and Skills Management.....	29
3.6.6	Department of Agricultural Investment and Enterprise Development.....	30
3.6.7	Northern Uganda Farmers Livelihood Improvement Project	32
3.6.8	Regional Pastoral Livelihood Improvement Project	34
3.6.9	Support to Sustainable Fisheries Development.....	37
3.7	National Agricultural Advisory Services/Operation Wealth Creation	39
3.7.1	Introduction	39
3.7.2	Government Purchases	39
3.7.3	Head quarters.....	41
3.8	National Animal Genetic Resources Centre and Data Bank	44
3.8.1	Introduction	44
3.8.2	Aswa Ranch.....	44
3.8.3	Njeru Stock Farm	45
3.8.4	Rubona Stock Farm.....	45
3.8.5	Ruhengere Field Station	45
3.8.6	Sanga Field Station.....	46
3.9	National Agricultural Research Organisation.....	49
3.9.1	Introduction	49
3.9.2	Abi ZARDI.....	49
3.9.2	Bulindi ZARDI.....	50
3.9.3	Headquarters and Support for NARO	50
3.9.4	Mbarara ZARDI	50
3.9.5	National Coffee Research Institute.....	50
3.9.6	National Forestry Resources Research Institute.....	51
3.9.7	National Crop Resources Research Institute.....	51
3.9.8	National Livestock Resources Research Institute	51
3.9.9	National Semi-Arid Resources Research Institute	51
3.9.10	Rwebitaba ZARDI.....	51
	CHAPTER 4: CONCLUSION AND RECOMMENDATIONS	56

ABBREVIATIONS

ACF	Agriculture Credit Facility
AEG	Agricultural Extension Grant
AIA	Appropriation in Aid
BMAU	Budget Monitoring and Accountability Unit
Bn	Billion
BoQs	Bills of Quantities
BoU	Bank of Uganda
CAO	Chief Administrative Officer
CDO	Cotton Development Organisation
CF	Community Facilitator
CGS	Competitive Grant Scheme
CI	Credit Institution
COVID-19	Corona Virus Disease- 2019
DAES	Department of Agricultural Extension and Skills Management
DAIED	Department of Agricultural Investment and Enterprise Development
DAMD	Department of Aquaculture Management and Development
DDA	Dairy Development Authority
DiFR	Directorate of Fisheries Resources
DLG	District Local Government
EDF	European Development Fund
EDTS	Entebbe Dairy Training School
EIA	Environmental Impact Assessment
ENRP	Enhancing National Food Security through Increased Rice Production in Eastern Uganda
ESIA	Environmental Social Impact Assessment
ESMP	Environmental and Social Management Plans
EU	European Union
FFB	Fresh Fruit Bunches
FPF	Fisheries Protection Force

FY	Financial Year
GAFFSP	Global Agriculture and Food Security Program
GoU	Government of Uganda
GRC	Grievance Redress Committees
Ha	Hectare
HRD	Human Resource Development
ICT	Information and communications technology
IDA	International Development Association
IDB	Islamic Development Bank
IFAD	International Fund for Agricultural Development
IFMS	Integrated Financial Management System
IT	Information Technology
JICA	Japanese International Cooperation Agency
KCCA	Kampala Capital City Authority
Kg	Kilogram
LG	Local Government
LLG	Lower Local Government
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MCC	Milk Collection Centre
MDAs	Ministries, Departments and Agencies
MDIs	Micro Deposit Taking Institutions
M&E	Monitoring and Evaluation
MFPEd	Ministry of Finance, Planning and Economic Development
MOPS	Ministry of Public Service
MoU	Memorandum of Understanding
MT	Metric Tonne
MTIC	Ministry of Trade, Industry and Cooperatives
NAEP	National Agricultural Extension Policy
NAES	National Agricultural Extension Strategy
NAADS	National Agriculture Advisory Services

NaCRRRI	National Crops Resources Research Institute.
NaCORI	National Coffee Research Institute
NaFIRRI	National Fisheries Resources Research Institute
NaFORRI	National Livestock Resources Research Institute.
NaLiRRI	National Livestock Resources Research Institute
NASARRI	National Semi-Arid Resources Research Institute
NAGRC&DB	National Animal Genetic Resources Centre and Data Bank
NARO	National Agriculture Research Organization
NAROSEC	National Agriculture Research Organization Secretariat.
NEMA	National Environment Management Authority
NDAL	National Dairy Analytical Laboratory
NEC	National Enterprise Corporation
NDP	National Development Plan
NLI	National Leadership Institute
NLR	National Laboratories Research
NOPP	National Oil Palm Programme
NPL	Non-Performing Loans
NTR	Non Tax Revenue
NUFLIP	Northern Uganda Farmers Livelihood Improvement Project
OAG	Office of the Auditor General
OWC	Operation Wealth Creation
PFI	Participating Financial Institution
PBB	Programme Based Budgeting
PFM	Public Financial Management
PMG	Production and Marketing Grant
PMU	Programme Implementation Unit
PPDA	Public Procurement and Disposal of Assets
PPP	Public-Private Partnership
PWD	Persons with Disabilities
Q	Quarter

RPLRP	Regional Pastoral Livelihood Improvement Project
SAGIP	Strategic Intervention for Animal Genetic Improvement Project
TA	Technical Assistance
TSA	Treasury Single Account
UCDA	Uganda Coffee Development Authority
UGCEA	Uganda Ginners and Cotton Exports Association
Ug shs	Uganda Shillings
UMFSNP	Uganda Multisectoral Food Safety and Nutrition Project
UPDF	Uganda Peoples Defense Forces
VHT	Village Health Teams
ZARDI	Zonal Agricultural Research Development Institute

FOREWORD

The Financial Year 2019/20 strategy focused on stimulating import substitution and export promotion, and incentivising private sector development. The government prioritised agriculture and agro-industrialisation, manufacturing, and mineral development to ensure inclusive growth and the creation of jobs, while promoting development of other key primary growth sectors. The economy grew despite the challenges experienced during the year. The wellbeing of Ugandans, and infrastructure necessary for development also improved considerably.

The above achievements notwithstanding, majority of the second National Development Plan (NDPII) outcome indicators were not achieved. This report by the Budget Monitoring and Accountability Unit (BMAU) shows that majority of the sectors monitored posted a fair performance, despite receiving a substantial amount of their budgets.

I encourage all government institutions, the private sector, development partners, and other key players in the development of this country, to harness the strengths coming with Programme Based Budgeting (PBB), and take cognizant of the lessons learnt during the NDPII to improve service delivery during this NDPIII period.



Keith Muhakanizi

Permanent Secretary/Secretary to the Treasury

EXECUTIVE SUMMARY

Introduction

The Agriculture Sector is composed of nine votes, namely: i) Vote 010: Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) ii) Vote 121: Dairy Development Authority (DDA) iii) Vote 125: National Animal Genetic Resource Centre and Data Bank (NAGRC&DB) iv) Vote 142: National Agricultural Research Organisation (NARO) v) Vote 152: National Agricultural Advisory Services (NAADS) Secretariat vi) Vote 155: Cotton Development Organisation (CDO) vii) Vote 160: Uganda Coffee Development Authority UCDA viii) Vote 122: Kampala Capital City Authority (KCCA) and ix) Vote 501-850 Local Governments (LGs) - District Production Services.

This report reviews selected key programmes and sub-programmes within the Agriculture Sector, based on approved plans and significance of budget allocations to the Votes. Attention is on large expenditure programmes including both development expenditure and recurrent costs.

Programmes selected for monitoring were based on planned annual outputs; regional representation; level of capital investment; and value of releases during Financial Year 2019/20; multi-year programmes that were having major implementation issues; and programmes prioritised by Government as having major contribution to achievement of sector and national priorities.

The methodology adopted for monitoring included literature review of annual progress and performance reports; interviews with the respective responsible officers or representatives; and observations or physical verification of reported outputs. Physical performance was rated using weighted achievement of the set output and outcome targets by 30th June, 2020.

Overall Performance

The overall performance of the Agricultural Sector in FY 2019/20 annual was good rated at 85.89%. All the votes registered good performance despite the 2019 Coronavirus Disease (COVID-19) pandemic as most activities were fully implemented by end of quarter three.

Financial performance

The approved budget for the Agriculture Sector for FY 2019/20 excluding arrears and external financing was Ug shs 720.251 billion (bn) of which Ug shs 648.682bn (90.06%) was released and Ug shs 640.275bn (98.70%) spent by 30th June 2020.

Highlights of sector performance

Farmers received funds from the Agriculture Credit Facility (ACF) and undertook several farm investments such as: purchase and installation of grain and foods processing machines; rehabilitation and expansion of ranches, fish ponds, banana and sugar cane plantations, grain trade; procurement of livestock; establishment of farm infrastructure and working capital.

Assorted planting and stocking materials as well as mechanisation and value addition equipment were distributed to farmers through the Agricultural Advisory Services Programme, Cotton Development Programme, Dairy Development Programme and several MAAIF sub-programmes.

The National Agricultural Research Organisation (NARO) Zonal Agricultural Research Development Institutes (ZARDIs) and Development Institutes generated several high yielding, labour saving, drought and pest and disease tolerant technologies and improved practices. Phase two works were completed and the cotton seed dressing plant in Pader District was in operation by 30th June 2020. The completed certified works included: the bale shed; front office block and weighbridge; raw seed cotton and unprocessed cotton seed stores; cyclone block and toilet block.

Key infrastructure such as office and housing for staff, farm roads, cattle crushes, paddocks and boreholes were developed, forage was established, and animal treatment continued at the National Animal Genetic Resource Centre and Data Bank (NAGRC&DB) stations and ranches. Breeding and conservation of animal breeds continued with fair performance on some ranches, and poor performance on other stations that exhibited low growth in animal herds sometimes for no justifiable reasons.

The Dairy Development Authority trained 4,441 dairy stakeholders along the value chain; 441 milk handling equipment and utensils were procured and distributed; 3,246 dairy premises/equipment/consignments were inspected; 5,015 milk and milk product samples were analysed; and pasture seeds distributed in the milk producing regions. Rehabilitation of the National Dairy Analytical Laboratory (NDAL) premises commenced in preparation for accreditation of trade exports.

Good performance was registered in delivery of key outputs including provision of extension services to farmers, establishment of demonstration sites, pest and disease surveillance and control, and establishment of agricultural infrastructure. There was increased adoption of improved farming practices by farmers countrywide due to improved access to extension services arising from the deepening of the single spine extension system in the LGs.

Key challenges

- i) Lower sector outputs, interruption of programme implementation and supervision and increased cost of operations, input and labour scarcity and staff shortage due to the COVID-19 restrictions and lockdown and suppression of budgets.
- ii) Low survival of crop based enterprises due to extreme climatic conditions and high prevalence of pests and diseases, and inadequate working capital.
- iii) Distortion of budget allocations for FY2019/20 due to carryover of purchases on credit incurred in FY2018/19 and re-allocations to Atiak Sugarcane Project under the Agricultural Advisory Services Programme.
- iv) Lack of a governing board at NAGRC&DB that delayed renewal of expired contracts for 22 key staff (including Farm Managers, Estates Manager, Heads of Human Resource, Audit and Procurement), staff infighting and dissatisfaction led to stalled implementation and supervision of planned activities. This also led to high unexplained losses of animals.
- v) Land grabbing and encroachment by investors and public officers especially at NARO Institutes and NAGRC&DB farms.
- vi) Non-compliance with Public Financial Management (PFM) laws and regulations – delayed approval and disbursement of funds by Accounting Officers.



Recommendations

- i) The Office of the Auditor General (OAG) should cause a census of all animal herds on NAGRC&DB stations and establish the causes of high losses of animals.
- ii) The Uganda Land Commission, MAAIF and agencies should ensure that all farm land in Government institutions is properly surveyed, demarcated and encroachers removed as well as concluding ongoing land related court cases
- iii) The Ministry of Finance, Planning and Economic Development (MFPED) should enforce compliance to PFM laws and regulations by Accounting Officers.



CHAPTER 1: INTRODUCTION

1.1 Background

The mission of the Ministry of Finance, Planning and Economic Development (MFPED) is, “*To formulate sound economic policies, maximize revenue mobilization, ensure efficient allocation and accountability for public resources so as to achieve the most rapid and sustainable economic growth and development*”. It is in this regard that the ministry has intensified implementation of Public Financial Management (PFM) reforms focused on enhanced resource mobilization and funds disbursement to Ministries, Departments, Agencies and Local Governments for improved service delivery.

The Budget Monitoring and Accountability Unit (BMAU) was established in FY2008/09 in MFPED to provide comprehensive information for removing key implementation bottlenecks. The BMAU is charged with tracking implementation of selected government programmes or projects and observing how values of different financial and physical indicators change over time against stated goals and targets (how things are working). This is achieved through semi-annual and annual field monitoring exercises to verify receipt and application of funds by the user entities. This report presents findings from monitoring the Agriculture sector for the budget execution period 1st July 2019 to 30th June 2020.

1.2 Sector Objectives

The overall agriculture sector objective is to enhance rural incomes, household food and nutrition security, exports and employment¹. The overall goal of the sector is to achieve an average growth rate of 6% per year over the period 2015/16 to 2019/20² by focusing on four strategic objectives namely: increasing production and productivity of agricultural commodities and enterprises; increasing access to critical farm inputs; improving access to markets and value addition; enhancing the quality of agricultural commodities; and strengthening the agricultural services institutions.

The national budget to achieve these objectives is expended through nine sector votes, namely: i) Vote 010: Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) ii) Vote 121: Dairy Development Authority (DDA) iii) Vote 125: National Animal Genetic Resource Centre and Data Bank (NAGRC&DB) iv) Vote 142: National Agricultural Research Organization (NARO) v) Vote 152: National Agricultural Advisory Services (NAADS) Secretariat vi) Vote 155: Cotton Development Organization (CDO) vii) Vote 160: Uganda Coffee Development Authority UCDA viii) Vote 122: Kampala Capital City Authority (KCCA) and ix) Vote 501-850 Local Governments (LGs) - District Production Services.

¹ GoU, 2015.

² Agriculture Sector Investment Plan 2015/16-2019/20.



CHAPTER 2: METHODOLOGY

2.1 Scope

This report is based on the selected programmes that were monitored in the agriculture sector during FY 2019/20 annual. The following criteria guided selection of programmes and sub-programmes that were monitored:

- Significance of the budget allocations to the votes within the sector budgets, with emphasis on large expenditure programmes.
- Multi-year programmes with recurring major implementation issues.
- Intervention prioritized by Government as key to achievement of national priorities.
- Interventions that received additional funds/re-allocations towards COVID 19 response

The annual monitoring was undertaken in seven out of nine votes namely: CDO, MAAIF, NAADS, NAGRC&DB, NARO, DDA and LGs. In addition, the Agricultural Credit Facility (ACF) was monitored. The programmes and sub-programmes that were monitored under each vote are listed in Annex 1.

2.2 Methodology

Physical performance of programmes was assessed through monitoring a range of indicators and linking the progress to reported expenditure. Across all the programmes and sub-programmes monitored, the key variables assessed included: performance objectives and targets; inputs and outputs and the achievement of intermediate outcomes.

2.2.1 Sampling

A combination of random and purposive sampling methods were used in selecting interventions to be monitored, with guidance from the implementing departments and use of the progress reports. Where applicable, multi-stage sampling was undertaken at three levels: i) Sector programmes and projects ii) Local governments and iii) Project beneficiaries. Sampling also took into consideration the available time and resources for field work, security situation, level of COVID 19 occurrence in some areas and geographical representation of the interventions.

2.2.2 Data Collection

Data was collected from various sources through a combination of approaches:

- Review of secondary data sources including: Ministerial Policy Statements; Sector Budget Framework Papers; project documents; performance reports; Work plans, procurement plans; and approved Estimates of Revenue and Expenditure.
- Review and analysis of data from the Integrated Financial Management System (IFMS);
- Key informant interviews with project managers and beneficiaries.....
- Field visits to project area; observation and photography.
- Call-backs in some cases to triangulate information.



2.2.3 Data Analysis

The data was analysed using both qualitative and quantitative approaches. Comparative analysis was done using the relative importance of the outputs and the overall weighted scores.

Relative importance (weight) of an output monitored was based on the amount of budget attached to it; thus the higher the budget the higher the contribution of the output to the sector performance. This was derived from the approved annual budget of each output divided by total annual budget of all outputs of a particular programme/project. The weight of the output and percentage achievement for each output were multiplied to derive the weighted physical performance.

Outcome performance analysis was based on the level of achievement of outcome indicators outlined in the Sector Ministerial Policy Statement or its associated Budget Framework Paper within a sampled programme. The achievement of the outcome indicators relied primarily on secondary data provided by the sectors from the Programme Budgeting System (PBS). The average of the outcome performance was calculated from the percentage achievement of the indicators.

The overall programme performance is a summation of all weighted scores for its outputs and the outcomes in a ratio of 65%:35% respectively. On the other hand, the overall sector performance is an average of individual programme performances that make up the sector. The performance was rated on the basis of the criterion in table 2.1.

Table 2.1: Assessment guide to measure performance of projects monitored in FY 2019/20

SCORE	COMMENT
90% and above	Very Good (<i>Achieved at least 90% of both outputs and outcomes</i>)
70%-89%	Good (<i>Achieved at least 70% of both outputs and outcomes</i>)
50%- 69%	Fair (<i>Achieved at least 50% of both outputs and outcomes</i>)
49% and below	Poor (<i>Achieved below 50% of both outputs and outcomes</i>)

2.3 Limitations of the report

- i) Inaccessibility to some respondents as they were working from home following the 2019 Coronavirus Disease (COVID-19) Standard Operating Procedures.
- ii) Some project areas in Karamoja were not monitored due to insecurity paused by cattle rustling.
- iii) Inadequate time for monitoring a representative sample of farmers.
- iv) Poorly specified outcome indicators, with some lacking performance data.



CHAPTER 3: SECTOR PERFORMANCE

3.1 Overall Sector Performance

Overall financial performance

The approved budget for the agriculture sector for FY 2019/20 excluding arrears and external financing was Ug shs 720.251 billion (bn), of which Ug shs 648.682bn (90.06%) was released and Ug shs 640.275bn (98.70%) spent by 30th June 2020 (table 3.1). This was very good release and expenditure performance for the sector.

Table 3.1: Agriculture Sector Financial Performance by 30th June 2020 (billions excluding arrears and external financing)

Vote/ grant	Approved budget (Ug shs billion)	Releases (Ug shs billion)	Expenditure (Ug shs billion)	% budget released	% release spent
MAAIF	186.192	145.880	142.997	78.3	98.0
DDA	10.132	7.358	7.328	72.6	99.6
NAGRC & DB	63.242	61.799	61.785	97.7	100
NARO	79.662	57.103	57.103	71.7	100
NAADS Secretariat	145.894	145.232	144.936	99.5	99.8
CDO	8.642	7.240	7.189	83.8	99.3
UCDA	96.702	92.249	89.460	95.4	97
LGs (District Production Services)	122.597	125.351	125.351	102.24	100
KCCA	7.188	6.470	4.126	90	63.8
Total	720.251	648.682	640.275	90.06	98.7

Source: MFPED Approved Budget Estimates FY 2019/20; Budget Directorate, MFPED; Integrated Financial Management System (IFMS); Agriculture Sector Quarter 4 Reports; Field Findings

Overall performance

The overall performance of the agricultural sector in FY2019/20 was good rated at 85.89% (table 3.2). All the votes registered good performance despite the COVID-19 pandemic as most activities were fully implemented by end of Q3.

Table 3.2: Agricultural Sector Overall Performance by 30th June 2020

Vote	Performance (%)
Cotton Development Organisation	82.90
Dairy Development Authority	74.80
Ministry of Agriculture, Animal Industry and Fisheries	83.90
National Agricultural Research Organisation	85.99
National Agricultural Advisory Services/Operation Wealth Creation	96.60
National Animal Genetic Resource Centre and Data Bank	87.90
Local Governments	89.20
Average sector performance	85.89
Agricultural Credit Facility	81.60

Source: Field findings



Detailed programme performance

3.2 Agricultural Credit Facility

3.2.1 Introduction

The Government of Uganda (GoU) has been implementing the Agricultural Credit Facility (ACF) since 2009 to facilitate the provision of medium and long term financing to projects engaged in agriculture, agro processing and the grain trade at more concessionary terms. The ACF is a risk sharing public private partnership (PPP) between GoU and Participating Financial Institutions (PFIs) aiming at bridging the financing gap for commercialised agricultural production. The interest chargeable is 12% per annum while working capital for grain trade does not exceed 15% per annum. Block allocations of Ug shs 20 million are provided to micro borrowers without collateral.

3.2.2 Performance

For the period FY2009/10 to FY 2019/20 since program inception, the scheme received 956 loan applications worth Ug shs 909.78bn, of which 772 projects (80.75%) were eligible and funded with a cumulative total of Ug shs 520.42bn (of which Ug shs 263.97bn or 50.72% was GoU contribution). The bulk of funding over this period was disbursed as working capital for grain trade (38%), followed by financing of agro-processing/value addition (28%), on farm activities (24%), post harvest management (9%) and livestock purchase (1%).

By 30th June 2020, Ug shs 141.063bn had been transferred from the Escrow Account to the ACF Capital Account and total repayments from PFIs amounted to Ug shs 137.717bn. A total of Ug shs 264.104bn was disbursed, leaving the fund balance as Ug shs 14.676bn. With a total commitments and projects in pipeline totalling Ug shs 102.116bn, the ACF was operating at a cash deficit of Ug shs 87.440bn by 30th June, 2020.

The high absorption of the ACF funds was due to two key factors: i) intensified marketing of the facility – over the five-year period 2015/16 to 2019/20, a total of Ug shs 841.650 million (70% of availed resource) was spent, ii) introduction of block allocations to smallholder farmers and entrepreneurs. In FY 2019/20, 118 individual smallholders benefitted, each with small amounts ranging between Ug shs 5 million to Ug shs 20 million as working capital or for farm improvements. All the monitored farmers that applied for the ACF received the funds and applied them to the intended purpose, although they faced several challenges that led to reduced outputs and outcomes:

DAGUUSE Enterprise Limited in Kalagala Village, Kalanamu Parish, Kalagala Sub-County in Luweero District partially implemented the planned activities after accessing Ug shs 50m, which was less than the amount requested (Ug shs 80m); the bank reduced the loan amount as this firm was a first time borrower. The firm procured 3,000 poultry birds, feeds and vaccination drugs. Construction of a poultry house was not done due to inadequate funds. Key challenges experienced were: lengthy loan processing period; high cost of processing the loan due to the charges of land valuers; difficulty in paying back the loan due to produce post harvest wastage compelled by lack of markets and low prices and income during the COVID-19 lockdown.

FREBA INTERNATIONAL, located in Kashanda Village, Nyarubango Parish, Rwangamahembe Sub-County in Mbarara District accessed ACF amounting to Ug shs 600m out of the requested Ug shs 1.5bn that was used to establish 140 acres of banana plantation out of the planned 500 acres. Less funds were accessed due to the farmer's inability to provide sufficient collateral. Key challenges included: delayed disbursement of the loan by the commercial bank by seven months leading to reduced viability of the project. This was associated with excessive bureaucracy and slow loan processing processes by the



commercial bank. The COVID-19 lockdown led to an increase in the cost of production due to scarcity of labour, transport and other key inputs and high post harvest losses as produce sales were very low.

Kakira Sugar Limited located in Kakira Estates, Kakira Town Council, Jinja District accessed Ug shs 7.5bn used to procure nine tractors and assorted implements as planned. Due to the COVID-19 restrictions, transportation of some tractor implements from the suppliers delayed; and exportation of finished products to the largest market - Kenya was curtailed.



Paddocks established and under use on Mr. Bajuni's farm in Mbarara District

Mr. Bajuna's dairy farm is located in Kyamatambale Village, Nshonzi Parish Lubaya Sub-County in Mbarara District. The farm accessed Ug shs 50m utilised in expanding the water system, installing a solar pump, and establishing two paddocks. The borrower faced challenges of a high cost of revaluing land previously valued when accessing the first ACF loan from the same bank. Discrepancies were also noted in the monthly loan repayment installments – whereas the loan agreement specified the installment amount as Ug shs 2,224,445, the borrower was paying Ug shs 2,368,174 as per the loan repayment schedule. This led to less outputs being delivered due to fund shortage.

The 12% interest rate charged was noted to be high. Due to COVID-19 restrictions, key inputs and labour costs were higher and marketing of milk and milk products was difficult leading to product wastage.

Mr. Kalyango's farm in Kamuli Village, Nakatundu Parish, Kangulumira Sub-county in Kayunga District accessed Ug shs 10m as requested and fully achieved all the planned outputs by establishing a six-acre banana-pineapple plantation. The farm's income increased from Ug shs 25m per harvest to Ug shs 51m per harvest, after accessing the ACF loan.



Sacks of maize grain procured with ACF loan at Mr. Sempala's farm in Kayunga District

Mr. Sempala's farm in Kilemeezi B Village, Nsiima Parish, Nazigo Sub-county in Kayunga District accessed Ug shs 10m out of the requested Ug shs 15m under the block allocation arrangement, for maize grain bulking. The planned outputs were partially achieved due to inadequacy of funding. Two acres of maize out of the planned five were planted and 10,000kg of maize grain was bulked and milled into flour.

The maize flour was delivered to schools, which later failed to pay the farmer upon closure during the COVID-19 lockdown. Some of the ACF funds were used to grow half an acre of tomatoes, although this activity was not among the planned actions.



Most of the tomatoes ripened in the garden and were wasted as there was no market for them during the COVID-19 lockdown. The availability of maize flour and tomatoes enhanced household food security during this period.

Mrs. Natukunda's farm in Nyakyihanga Village, Kagorora Parish, Nyakyeza Sub-county in Mbarara District accessed Ug shs 80m used to establish one acre of banana plantation and procurement of 30 heads of cattle. The farmer faced a challenge of repaying the loan due to lack of market for the produce and the low prices during the COVID-19 lockdown. Production was lower due to the adverse weather conditions. Some of the planned activities were not implemented as the funds advanced (Ug shs 80m) were lower than the loan request (Ug shs 100m) due to inadequate collateral presented by the farmer.



ACF funded fish pond on Mr. Agwau's farm in Soroti District

Mr. Agwau John's farm in Orwadai Cell A, Central Ward Soroti Town Council in Soroti District accessed Ug shs 25m of the planned Ug shs 30m that was used to establish an irrigation system, solar pump with three panels, renovation of a fish hatchery and partial expansion of the fish ponds.



ACF financed poultry project at Mr. Walubi's farm in Bugweri District

Under the block allocations, **Mr Walubi's farm** in Buwooya A Village, Buyanga Parish, Buyanga Sub-county in Bugweri District accessed Ug shs 15m used to procure 2,000 poultry birds and starter feeds. Acceptance of the land valuation report by the bank delayed by three months leading to late access to the loan and lower profits as input prices had increased. Due to the mobility restrictions during the COVID-19 lockdown, egg sales were very low, cost of production was high and the business viability reduced. Awareness about the availability of ACF was low in Bugweri District, making it difficult to get sufficient farmer numbers to access the block allocations.

Mr. Alireki's farm in Kalitunsi Village, Lumbuyo Parish, Kaliro Town Council in Kaliro District accessed Ug shs 20m used to procure 15,000kgs of maize grain for feeding poultry birds. This enabled the farm to expand stock from 1,200 birds to 3,400 birds in FY 2019/20. The number of egg trays collected and sold per day increased from 32 (equivalent to Ug shs 320,000) to 70 (equivalent to Ug shs 665,000). The increased income was used to expand an existing banana plantation and constructing additional poultry structures. The farm failed to sustain all the birds during the COVID-19 lockdown period, thus scaling down the stock to 2,800 birds.



Mrs. Aida Nakitto's farm in Wantubi Village, Nyenga Parish in Buikwe District accessed Ug shs 10m out of the requested Ug shs 20m. Being a first time borrower, the bank disbursed less money than requested yet the farm's security was valued at Ug shs 60m. This was a key challenge as most of the planned activities were not implemented. The farmer used the funds to plant seven acres of rice out of the planned 10 acres; the piggery unit was not expanded and grain milling processes were not undertaken as planned. Poor crop viability was experienced due to delayed processing of the loan leading to late planting when the rain season was ending. About 80% of the crop was lost to floods and birds as the farmer could not access their garden during the COVID-19 lockdown. Labour was scarce during the lockdown. These challenges made loan repayment difficult. The farmer noted low awareness about the ACF in Buikwe District.

Mr. Osudo's farm in Wabusanke Village, Kawongo Parish, Kimenyedde Sub-county in Mukono District received Ug shs 20m out of the Ug shs 50m requested. The farmer established 18 acres of sugarcane plantation and paid the working capital (fertilisers and labour). Only a half of the planned acres (36 acres) of sugarcane plantation were planted due to inadequate funds disbursed. The key challenge was lack of security preferred by the bank (land title), despite the farmer having presented local land agreements.



Poultry structure and cages established with ACF at Peri Farmers Limited premises in Kampala District

Peri Farmers Ltd located in Bunga Hill Village, Gaba Parish, Makyindye Division in Kampala District accessed Ug shs 102m out of the Ug shs 170m requested and established three poultry structures and 53 poultry cages for 5,000 birds. The key challenge was delayed processing of the loan by seven months due to the initial rejection by the bank of the collateral (land) offered by the firm on the pretext that it was too far (Mityana District) and lacked permanent structures.

3.2.3 Overall performance of the Agricultural Credit Facility

The performance of the ACF in FY 2019/20 was good rated at 81.60% (table 3.3). All monitored farmers received and used the funds for the intended purpose, although less planned outputs and outcomes were realised. Investments included: purchase and installation of grain and foods processing machines, rehabilitation and expansion of ranches, fish ponds, banana and sugar cane plantations, grain trade, procurement of livestock, establishment of farm infrastructure and working capital.

**Table 3.3: Performance of the Agricultural Credit Facility by 30th June 2020**

Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Qty	Physical performance Score (%)
Valley dam constructed, three paddocks established and a solar pump system installed on Mr. Bajuna's farm in Mbarara District (number of facilities)	50,000,000	50,000,000	5.00	4.00	0.38
500 acres of banana plantation and one irrigation system established on Freba International Project Farm in Mbarara District (number of items)	1,500,000,000	600,000,000	501.00	140.00	10.03
Nine tractors, 5 tractor impliments, one cane loader and one mobile garage truck procured at Kakira Sugar Limited in Jinja District (number of equipment)	8,500,000,000	7,500,000,000	16.00	16.00	81.34
Irrigation system, 3 solar panels, 10 fish ponds established and fish hatchery renovated on Mr. Agwau's farm in Soroti District (number of facilities)	30,000,000	25,000,000	15.00	14.00	0.29
4000 poultry birds, feeds and drugs procured and poultry house constructed at DAGUUSE Enterprise Limited in Luweero District (number of items)	80,000,000	50,000,000	4003.00	3003.00	0.77
2000 poultry birds and feeds procured on Mr. Walubi's farm in Bugwere District (number of birds)	25,000,000	15,000,000	2000.00	2000.00	0.24
20 piglets procured, 10 acres of rice established and working capital obtained for operating a maize mill on Mrs. Aida Nakitto farm in Buikwe District (number of items)	20,000,000	10,000,000	31.00	7.00	0.09
Banana-pineapple plantation established on Mr. Kalyango's farm in Kayunga District (acres)	10,000,000	10,000,000	6.00	6.00	0.10
10,000kg of maize grain bulked and 5 acres planted with maize on Mr Sempala's farm in Kayunga District (number of items)	15,000,000	10,000,000	10005.00	7005.00	0.14
Sugarcane plantation established on Mr. Osudo's farm in Mukono District (acres)	50,000,000	20,000,000	36.00	18.00	0.48
Three poultry structures and 53 poultry cages constructed at Peri Farmers Ltd in Kampala District (number of facilities)	170,000,000	102,000,000	56.00	56.00	1.63
Programme Performance (Outputs)					95.47%
Outcome Indicator			Annual Target	Achieved	Score (%)



Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Qty	Physical performance Score (%)
Real GDP growth of the agricultural sector (%)			6	4.2	70
Percentage change of farming households that have adopted commercialised agriculture			20	8.3	42
Programme Performance (Outcomes)					56
Overall Programme Performance					81.6%

Source: Field findings

Outcome performance reduced due to: delayed processing and disbursement of funds to beneficiaries; inadequate funds disbursed compared to the business plans that were presented by the farmers; and post harvest losses and lack of labour and produce markets during the COVID-19 pandemic lockdown. These factors led to a reduction in project viability and inadequate commercialisation at farm level.

3.2.4 Challenges

- i) Difficulty in repayment of loans by most beneficiaries due to low production, labour scarcity, high post harvest losses and reduced income as a result of the restrictions imposed and limited access to input and output markets during the COVID-19 pandemic period.
- ii) Loss of project viability and profitability on many farms due to: a) delayed processing of loans (by two to nine months); b) less funds disbursed than requested; c) poor communication between the clients and commercial banks; d) high loan processing costs escalated by asset valuation charges; e) commercial banks changing/increasing the loan repayment amounts without notifying the borrowers; f) extreme weather conditions; inadequate working capital, and g) lack of extension advice to enable farmers manage the enterprises effectively.

3.2.5 Recommendations

- i) The PFIs should expedite loan restructuring for the affected ACF beneficiaries/firms, following the guidelines issued by BOU.
- ii) The BoU and MFPED should spearhead and support the development of a web-based online loan application and processing system for the ACF to hasten and ease access by all interested entrepreneurs.
- iii) The BoU should strengthen supervision and enforcement of regulations in commercial banks with regard to terms and conditions of the ACF loans given to borrowers.

3.3 Cotton Development Organisation

3.3.1 Introduction

The Cotton Development Organisation (CDO) Vote 155 is mandated to monitor the production, processing and marketing of high value cotton and its by-products. The CDO has one programme - Cotton Development and two sub-programmes: 01 Headquarters, and Project 1219 Cotton Production Improvement. The programme strategic objective is to increase cotton production and quality with the aim of contributing to the national economy through increased incomes. The intended outcome is increased cotton production, quality and domestic value addition.



Cotton Development Programme

The approved budget for Cotton Development Programme in FY 2019/20, excluding arrears was Ug shs 8.642bn, of which Ug shs 7.240bn (83.8%) was released and Ug shs 7.189bn (99.3%) spent by 30th June 2020. This was a good release and very good expenditure performance. The areas sampled for monitoring under the two sub-programmes are presented in Annex 1.

3.3.2 Headquarters

Background

Within this sub-programme, the CDO provides services to 67 cotton growing districts in the following regions: West Nile, Western, Mid-West, Lango, East Acholi, West Acholi, Bugisu /Teso, Pallisa, Pader Project, Tororo, Busoga. The CDO collaborates with Uganda Ginners and Cotton Exports Association (UGCEA) to procure, process and distribute cotton seeds and inputs (pesticides, herbicides, spray pumps, tractor hire services) to farmers.

The approved budget for Headquarters sub-programme for FY 2019/20 was Ug shs 4.43bn which was 100% released and Ug shs 4.38bn (98.9%) spent by 30th June 2020. This was very good release and expenditure performance for this sub-programme.

Performance

By 30th June 2020, the following inputs had been distributed to farmers and seed growers in the 67 cotton growing districts: 3,137 metric tonnes (Mt) of seed; 35 Mt of foundation seed; 522 Mt fertilizers; 1,701,275 one-acre-units of pesticides, 5,564 spray pumps and 4,484 litres of herbicides. A total of 4,000 one acre demonstrations plots were established for training farmers; 9,500 acres were planted under seed multiplication out of which 4,000 acres were established on prison farms. A total of 1,121 acres were ploughed using tractors in the 67 districts; and 450 UGCEA extension workers were deployed to support the farmers.

In addition, a total of 117,982 acres were ploughed by ox ploughs distributed in the previous seasons; 65,954 acres were ploughed for cotton and 52,028 for other crops. However, ploughing was hampered by erratic rainfall patterns experienced in November and December 2019 which negatively affected the quality of cotton harvested.

The quantity of cotton produced increased from 110,707 bales (@185kg) in FY2015/16 to 189,44 bales in FY2018/19, and reduced to 173,645 bales in FY2019/20. Cotton production was negatively affected by erratic rainfall patterns during the early part of the growing season (July and August) and heavy rains during the later part of the season (November and December); about 79% of the total lint classed was graded in the top 3 grades. Using the GoU Lint Buffer Stock Revolving Fund, a total of 4,050 bales of lint were procured and supplied to the two local textile manufacturers. 2,050 bales for Fine Spinners Uganda Ltd and 2,000 bales for Southern Range Nyanza. The volume of cotton consumed locally decreased from 5,930 bales to 5,836 over the same period.

Farmers received the inputs distributed by CDO that enhanced farm production and household income. Some regions faced unique challenges that affected cotton production at farm level as discussed below.

Acholi Region: By 30th June 2020, Ms Evaline Atto in Agonga Village B, Kochigoma Sub-county, in Nwoya District had received 6 bags of cotton seed, 6 litres of pesticides, 3 bags of NPK fertilizer and a spray pump. She appreciated the good quality of the inputs given to her, and planted three acres of cotton. The proceeds from the cotton sales were used to cater for her family's domestic needs and paying school



fees for her children in private schools. Through cotton growing, she built a commercial building in Nwoya Town Council which generates surplus income for her family. This greatly improved her standards of living.

Busoga Region: Cotton growing and production in Busoga region was affected by heavy rains and flooding which led to low production as the cotton balls rotted. The most affected areas were Nawaikoke and Bumanya sub-counties in Kaliro District, and Buluguyi and Iwemba sub-counties in Bugiri District. Submerging of gardens especially around the lake showers in the subcounties of Kidela, Nkondo and Kagubi in Buyende District led to loss of about 500 acres of the cotton crop and difficulties in payment of credits by farmers who borrowed the inputs.

Mid-Western and Central Region: Farmers and farmer groups received cotton inputs and were equipped with techniques on good agronomic practices including post harvest handling. However, access to extension services was low. The extension workers were overwhelmed with the workload given the low extension worker to farmer ratio at 1:67,000.

Challenges

- i) Low outreach to farmers due to inadequate transport means for the CDO staff to reach farms, more especially in the hard-to-reach areas such as mountainous or swampy terrain.
- ii) Cotton production was lower due to: a) inability to plough fields due to heavy rains that also affected the quality of harvested cotton, b) rampant pests and diseases that lowered yields on average by 20% across districts (estimated by cotton sector stakeholders).
- iii) Some planned farmer trainings were not held due to the COVID-19 Standing Operating Procedures (SOPs).

Recommendations

- i) The CDO should prioritise procurement of additional vehicles at regional level for the hard-to-reach areas where motorcycles cannot be used.
- ii) The CDO should promote fertiliser use at farm level and establish partnerships with agro-input dealers to supply the inputs in proximal areas at subsidised rates to the cotton farmers.

3.3.3 Cotton Production Improvement

Background

Since FY 2014/15, the CDO has undertaken construction of a Government cotton seed processing plant on 16.5 acres of land in Akwara Village, Pajule Sub-county in Pader District. The first phase works were completed in FY 2017/18 and the second phase works commenced in the same year. By 30th June 2019, the following structures had been completed since project inception: perimeter fence, guard house, ablution block, front office, ginning and delinting halls, seed bagging area, raw cotton seed store, unprocessed cotton seed store, power house, pump house, booster pump house, overhead water tanks and underground water tank.

Machinery from the old sites – Ngetta, Masindi and Kachumbala – were transferred and installed at the plant. New cotton processing machinery was procured and installed, including the weighbridge. Some planned structures were not constructed due to inadequate funding. The approved budget for the sub-programme for FY 2019/20 was Ug shs 4.211bn, of which Ug shs 2.81bn (66.7%) was released and Ug



shs 2.81bn (100%) spent by 30th June 2020. This was a fair release and good expenditure performance for this sub-programme.

Performance

Phase two works were completed and the cotton seed dressing plant in Pader District was in operation by 30th June 2020. The completed certified works were: Bale shed; front office block and weighbridge; raw seed cotton and unprocessed cotton seed stores; cyclone block and toilet block. Installation of the decommissioned machines from the CDO dressing stations in Lira, Kachumbala and Masindi and the imported machinery was completed. Planned works were revised from construction of stores and multi-purpose hall to construction of a bale shed and mechanical workshop. This arose from the urgent need to have storage facilities for bales and a workshop for repairs and maintenance given that the seed processing facility was operational.

The delinting, grading, treating and packaging of seed had commenced; 8 gin stands were delivered to Pader. Installation was however postponed due to COVID-19 outbreak and subsequent lockdown which prevented the supplier's experts from India from traveling to Uganda to install and commission the machines. Due to revision of priorities, procurement of a new seed delinting machine was deferred in favour of procuring additional gin stands to increase the ginning capacity.

Procurement of construction services for the mechanical workshop was completed and the site handed over to the contractor in March, 2020. Construction was however halted due the COVID-19 lockdown; works resumed in July 2020 and was at 40% completion. The limited storage facility for both raw and processed cotton which leads to contamination with moisture and foreign bodies and wastage of seed cotton remained a major challenge. The CDO constructed a temporary shade to alleviate the problem which was already filled to maximum capacity. Power inadequacy for operating the machines resulted in frequent use of generators that increased the cost of operations.



Completed bale shade still in the liability defects time (left) and ongoing construction works of the mechanical workshop (right) at the cotton seed dressing station in Pader District

Overall Performance of the Cotton Development Programme

The overall performance of the Cotton Development Programme in FY 2019/20 was good rated at 82.9% (table 3.4). Most of the planned key outputs were achieved; the outcomes were lower as less cotton was produced and consumed locally.


Table 3.4: Performance of the Cotton Development Programme by 30th June 2020

Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)
Output: 72 Government Buildings and Administrative Infrastructure (No. of constructions)	3,611,000,000	2,209,125,000	7.00	3.10	18.02
Output: 77 Purchase of Specialised Machinery & Equipment (No. of delinting machines)	600,000,000	600,000,000	2.00	0.40	0.83
Output: 02 Seed multiplication (No. of Seed growers)	451,402,170	451,402,170	6500.00	6500.00	3.11
Output: 03 Farmer mobilisation and sensitisation for increasing cotton production and quality (No. of Demo Plots)	3,069,091,882	3,069,091,881	4000.00	4000.00	21.16
Output: 04 Cotton targeted extension services (No. of extension workers)	198,500,000	198,500,000	400.00	450.00	1.37
Output: 06 Mechanisation of land opening (No. of districts)	57,000,000	57,000,000	67.00	67.00	0.39
Output: 01 Provision of cotton planting seed (Bags)	1,286,550,000	1,048,782,500	514620	419513	8.87
Output 05: Provision of pumps - Motorised (Number)	190,400,000	126,000,000	68.00	45.00	1.31
Output 05: Provision of pumps - Matabi knapsacks (Pieces)	137,500,000	123,050,000	2750	2461	0.95
Output 05: Provision of pesticides (Units)	3,957,800,000	3,059,238,000	1130800	874068	27.29
Output 05: Provision of herbicides (Litres)	152,235,000	38,370,000	10149	2558	1.05
Output 05: Provision of fertilizer (Kg)	760,740,000	706,860,000	12679	11781	5.24
Motorcycles (Number)	32,500,000	10,000,000	13.00	4.00	0.22
Programme Performance (Outputs)	14,504,719,052				89.82%
Outcome Indicator			Annual Target	Achieved	Score (%)
Percentage of lint classed on the top 3 grades			0.8	0.79	99
Volume of Cotton produced in Metric tons(Mt)			41000	32083	78
Volume of Cotton consumed locally in Metric tons (Mt)			4200	1389	33
Programme Performance (Outcomes)					70%
Overall Programme Performance					82.9%

Source: Field findings



Challenges

- i) Limited storage facility for both raw and processed cotton which leads to contamination with moisture and foreign bodies and wastage of seed cotton. The CDO constructed a temporary shade to alleviate the problem which was already filled to maximum capacity.
- ii) Most scheduled works and activities were halted due to the COVID-19 lockdown.
- iii) Inadequate power to operate the machines necessitating frequent use of generators that escalated the cost of operations.
- iv) Poor quality of cotton seed delivered by farmers and higher volumes of rejects resulting from too much rains and high moisture content and spots in the raw cotton.

Recommendations

The CDO should construct additional cotton stores each with a storage capacity of 300-350 MT at the dressing station

- i) The CDO should collaborate with UMEME to provide a dedicated power line to the dressing station.
- ii) The CDO and UGCEA should strengthen supervision and quality assurance on farms and at the point of procurement of cotton seed from farmers.

3.4 Dairy Development Authority

3.4.1 Introduction

The Dairy Development Authority (DDA)'s mission is to provide sustainable dairy development and regulatory services for increased production, processing, marketing and consumption of milk and milk products in the country. The planned outcome is increased production of quality and marketable milk and milk products. The DDA has one programme - Dairy Development and Regulation, and two sub-programmes: 01 Headquarters, and 1268 Dairy Market Access and Value Addition.

Dairy Development and Regulation Programme

The approved budget for Dairy Development and Regulation Programme for FY 2019/20, excluding arrears was Ug shs 10.131bn, of which Ug shs 7.357bn (72.61%) was released and fully spent by 30th June 2020. This was good release and expenditure performance. Funds release were much lower for the development budget (61.05%), than the recurrent budget (79.10%). Low resource absorption was due to delayed acquisition of the land titles and delayed importation of specialised equipment due to the lockdown.

3.4.2 Headquarters

Background

The Headquarters sub-programme focuses on promoting dairy production and marketing through stakeholder training and group strengthening, provision of inputs and ensuring compliance to dairy standards and regulations. The approved recurrent budget for DDA for 2019/20 was Ug shs 6.489bn, of which Ug shs 5.133bn (79.10%) was released and fully spent by 30th June 2020.



Performance

Countrywide, 4,441 dairy stakeholders along the value chain were trained; 441 milk handling equipment and utensils were procured and distributed; 3,246 dairy premises/equipment/consignments were inspected; 5,015 milk and milk product samples were analysed; and pasture seeds were distributed (12,998 kgs Chloris Gayana, 2,803 seedlings of Colliandra, 7500 seedlings of bracharia, 322kg of lab lab and 316kgs centrocema) in the milk producing regions. Less inputs were delivered than planned due to budget shortfall and COVID-19 restrictions.

However, challenges were experienced at implementation level that reduced the effective use of the inputs thus contributing to lower programme outcomes. For the Northern region, 245kgs of Chloris Gayana seeds, 200kgs of Centrosome seeds, 2,000 Calliandra seedlings and 11,820 Brachiaria seedlings were procured and delivered to the DDA Gulu Regional Office for distribution to farmers. Farmers did not accept the planting materials delivered late in December 2019 and February 2020 when the dry spell was on. About 600 damaged seedlings were still at the Gulu Regional Office. The COVID-19 pandemic led to suspension of the input distribution process. By 30th June 2020, 25kgs of Chloris Gayana, 64kgs of Centroseme seeds and 200 seedlings had not been distributed to farmers.



DDA office buildings for Northern region were completed in Gulu District

Alebtong Dairy Farmers Association was formed in Alebtong District. Construction of office buildings for the Northern region were completed and commissioned in March 2020. The national June Dairy Month celebrations that were scheduled to be hosted in the Northern region were not held due to the COVID-19 restrictions and the subsequent budget cuts. Some key activities were not implemented due to understaffing in the Northern region. The office had three technical staff working in 17 districts that were geographically dispersed.

Training of key stakeholders, support to farmer groups, enforcement of standards and regulations and safety and quality feed back meetings were done in the North Eastern region. However, delivery of key outputs was affected by budget cuts, COVID-19 restrictions, and the Foot and Mouth Disease in the Bugisu region.



In the South Western region, 16 out of the planned 120 dairy premises and equipment were inspected during quarter four due to limited funds released and the restricted staff working time. All planned development activities such as training of farmers and milk handlers were not carried out during the quarter.

The regional milk market/business was affected by continued restriction of export to Kenya. Milk processing was further affected by the continued closure of Rwanda-Uganda border. Some factories like Sanatos Foods Ltd and



Excel Dairies 2014 Limited closed down. Factories were under utilised due to a drop in milk production and marketing. By 30th June 2020, utilised capacity was 417,500 litres per day in the seven milk factories, against total installed capacity of 1,973,000 litres per day.

The food grade milk handling utensils were procured but had not been delivered into the country from the supplier abroad due to COVID-19 lockdown restrictions.

Challenges

- i) The delivery of key planned outputs including skilling and training of dairy stakeholders and enforcement of standards was low due to: a) COVID-19 lockdown restrictions that delayed procurements and implementation processes, b) budget suppression and cuts, c) inadequate staff and vehicles.
- ii) Reduced production and marketing of milk and milk products due to: a) lockdown restrictions, b) Food and Mouth Disease quarantine since March 2019 in some areas, c) Fall in milk prices from an average of Ug shs 2,000 per liter before lockdown to less than Ug shs 1,000 per liter, d) predominance of local breeds at farm level.

Recommendations

The DDA should prioritise increasing staffing at the regional level.

- i) The MAAIF should strengthen routine surveillance and animal vaccination to prevent livestock disease epidemics.
- ii) The DDA should collaborate with NAGRC&DB, MAAIF and LGs to promote improved animal breeds and artificial insemination technologies at farm level.

3.4.3 Dairy Market Access and Value Addition

Background

The Dairy Market Access and Value Addition sub-programme focuses on revival of the Entebbe Dairy Training School (EDTS), rehabilitation of Milk Collection Centres (MCCs), establishment of regional offices and accreditation of the National Dairy Analytical Laboratory (NDAL). The approved development budget for DDA for 2019/20 was Ug shs 3.642bn, of which Ug shs 2.223bn (61.05%) was released and fully spent by 30th June 2020.

Performance

The DDA intensified the agenda of accreditation of the NDAL at Lugogo, Kampala to facilitate certification of trade exports to the international standards. Rehabilitation of the NDAL premises commenced; procurement of a mobile laboratory van was initiated to enhance on spot milk testing countrywide; and standard operating procedures for laboratories and manuals for dairy quality management and procedures were developed and disseminated. The main challenge at the NDAL was lack of sealing of the operating environment for quality control, an issue that was being addressed through the ongoing renovations.

Tiling works and sign posting were completed at Entebbe Dairy Training School (EDTS) and cooling systems were installed in the classrooms. Dairy equipment was delivered late and not installed due to the COVID-19 pandemic disruptions.

Rehabilitation of the NDAL premises commenced in preparation for accreditation of trade exports. Standard operating procedures for laboratories and manuals for dairy quality management and procedures



were developed and disseminated. Tiling works and sign posting were completed at EDTs and cooling systems were installed in the classrooms. Importation and installation of dairy equipment delayed and works stalled at EDTs due to COVID-19 pandemic restrictions and land encroachment by Fishways Limited. Milk production and marketing was lower due to the Food and Mouth Disease quarantine since March 2019 in some milk producing areas and the predominance of local breeds at farm level.

Challenges

- i) Importation and installation of dairy equipment delayed and works stalled at EDTs due to COVID-19 pandemic restrictions and SOPs.
- ii) Limited training services offered at the EDTs due to inadequate technical staff; the school had six staff, of whom only two were technical and the rest were support staff.
- iii) Fishways Limited encroached on the EDTs land and this interrupted the scheduled works and activities. The matter has been under litigation in courts of law since October 2018.
- iv) The Kitgum MCC was not rehabilitated fully as planned due to budget cuts and late invoicing by the service providers.

Recommendations

- i) The DDA should prioritise enhancing technical staffing levels at the EDTs.
- ii) The Uganda Land Commission and DDA should pursue the land cases in courts of law to ensure their timely conclusion.

Overall Performance of the Dairy Development and Regulation Programme

The overall performance of the Dairy Development and Regulation Programme in FY2019/20 was good at 74.87%. The two sub-programmes: Headquarters, and the Dairy Market Access and Value Addition Project performed fairly in terms of delivery of planned outputs rated at 57.24% (table 3.5). Most of the planned key outputs were not achieved due to the COVID-19 pandemic, coupled with partial releases. Fair performance was attributed to scanty information provided by the programme among others.

Table 3.5: Performance of the Dairy Development and Regulation Programme by 30th June 2020

Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)
Subprogram: 01 Headquarters					
Output: 01 Support to dairy development (No. of outputs)	3,093,109,021	2,956,717,436	3	1.4	13.65
Output: 02 Seeds for pasture (444 kgs) and forage (13,820 seedlings) procured and distributed to farmers (items)	87,456,720	87,456,720	15826	14916	0.75
Output: 02 Food grade milk handling utensils procured and distributed (number)	119,544,374	115,044,374	708	12	0.02
Output: 02 Quality and safety feedback meetings held (number)	60,160,000	29,360,000	19	6	0.35
Output: 02 Chuff cutters procured (number)	95,500,000	95,500,000	16	16	0.86



Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)
Output: 03 Youth and women groups supported in commercial feed production (number of groups)	13,600,000	11,600,000	106	51	0.07
Output: 03 New groups formed and old ones supported (number of groups)	9,360,000	5,400,000	15	2	0.02
Output: 03 Milk handling premises inspected (number)	309,344,933	256,318,759	770	375	1.64
Output: 03 Dairy standards and regulations enforced (number of enforcement exercises)	142,503,561	93,494,939	36	16	0.87
Output: 03 Market surveillance exercises undertaken (number)	84,542,061	51,395,295	26	11	0.53
Output: 03 Samples of milk and milk products analysed (number)	5,668,000	3,648,000	2500	1719	0.05
Output: 02 Promotion of dairy production and marketing (No. of outputs)	1,136,467,492	886,009,790	15	4	3.51
Output: 03 Quality assurance and regulation along the value chain	2,259,971,178	1,290,966,594	20	6	10.73
Sub-programme 2: Project: 1268 Dairy Market Access and Value Addition					
Output: 01 Support to dairy development (No. of outputs)	641,845,788	619,797,642	3	1.5	3.0
Output: 02 Promotion of dairy production and marketing (No. of outputs)	89,100,000	67,925,000	2	1	0.5
Output: 03 Quality assurance and regulation along the value chain (No. of outputs)	1,717,000,000	500,343,372	3	1	15.5
Output: 72 Government Buildings and Administrative Infrastructure	581,489,199	422,814,123	3	1	2.4
Output: 76 Purchase of Office and ICT Equipment, including Software	20,000,000	20,000,000	2	1.4	0.1
Output: 77 Purchase of Specialised Machinery & Equipment	553,000,000	553,000,000	1	0.5	2.5
Output: 78 Purchase of Office and Residential Furniture and Fittings	40,000,000	40,000,000	2	0.5	0.1
Total	11,059,662,327				57.24%
Outcome Indicator			Annual Target	Achieved	Score (%)
Value of dairy exports			475.2	511.96	108
Production volume of quality and marketable milk and milk products. (Billion Litres)			2.52	2.7	107
Programme Performance (Outcomes)					107
Overall Programme Performance					74.8 %

Source: Field Findings



3.5 Local Governments

3.5.1 Introduction

The Local Governments (LGs) have the responsibility for all decentralised services in the production including crop, animal and fisheries husbandry extension services; entomological services; and vermin control. The services are budgeted under one programme - District Production Services. The districts receive transfers as a Sector Conditional Grant (wage) and Sectoral Conditional Grant (Non-wage) that addresses two sub-programmes - Agricultural Extension, and Production.

The overall purpose of the transfers to LGs is to support services that increase the level of production and productivity of priority agricultural commodities. The grant is spent as follows: 25% as a development grant and 75% for recurrent operational expenses at the district and sub-county level. The approved budget for the Local Government Production Sector in FY2019/20 was Ug shs 122.597bn, of which Ug shs 122.597bn (100%) was released and fully spent by 30th June 2020. This was very good release and expenditure performance for this sub-programme. The districts monitored to assess programme performance are presented in Annex 1.

District Production Services

3.5.2 Performance

The overall performance of the District Production Services Programme in FY2019/20 was good at 89.20% (table 3.6). By 30th June 2020, good performance was registered in delivery of key outputs including provision of extension services to farmers: establishment of demonstration sites; pest and disease surveillance and control; and establishment of agricultural infrastructure. There was increased adoption of improved farming practices by farmers countrywide due to improved access to extension services arising from the deepening of the single spine extension system in the local governments.

Table 3.6: Performance of the District Production Services by 30th June 2020

Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)
Construction/Maintance of Fish /Bees/ Dairy Demos (No. of Demos)	103,447,154	71,665,593	63.0	52.8	2.01
Training of farmers/Farmer groups(Number of Farmers/Groups)	612,152,352	453,172,679	106739.0	97500.0	11.89
Maintain/Establish Irrigation schemes (No.of schemes /Kits)	305,945,000	204,674,000	41.0	15.2	3.29
Setting/Mantaining Demonstration gardens (No. of Demos Gardens)	221,354,595	141,928,749	1276.0	680.0	3.57
Market assesmets conducted (No.of Surveys/ visits)	69,036,600	50,701,600	233.0	184.0	1.34
Animal and crop disease surveillance (No. of visits)	276,129,009	181,558,194	1908.0	747.0	3.19
District farm garden/ Plantations (No. of gardens)	116,117,266	89,427,527	68.0	44.0	1.89



Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)
Plant Clinic established and maintained (No. of clinics)	29,844,397	17,954,198	37.0	28.5	0.58
Procuring and distributing tsetse fly traps (No. of traps)	84,690,171	42,073,976	1771.0	1502.5	1.64
Procuring and installation of bee hives.(No. of bee hives)	124,037,400	101,997,948	702.0	604.0	2.41
Sensetisation/Backstopping/inspection and Monitoring (No of visits)	925,315,028	527,842,214	9250.0	6621.0	17.97
Farm Agricultural inputs distributed (Number)	187,837,918	155,200,578	35977.0	36359.2	3.65
Slaughter slab /Market stall construction/ rehabilitation/Slab monitoring (No. of slabs)	318,817,941	235,325,633	816.5	213.6	2.19
Animal Vaccination (No. of animals vaccinated)	74,323,850	36,006,850	184951.0	464519.0	1.44
Vaccinaton doses Procured (Number of doses)	44,051,133	23,638,946	1101.0	250.3	0.36
Liquid nitrogen (No. of doses)	29,602,000	15,325,000	1100.0	355.0	0.36
Data collection (No. of visits)	143,878,731	108,312,658	408.0	275.0	2.50
Purchase of equipcment for field work (No.of equipments)	103,002,000	71,845,000	232.0	57.4	0.71
Vehicle/Motor cycle maintainance/ Procurement (No.of vehicles)	367,289,324	271,953,097	149.0	121.0	7.13
Maintaining/Procurement office equipment(No.of equipment sets)	207,997,601	105,743,500	179.0	47.0	2.09
Coordinations (Quartely meetings)	489,884,595	273,695,754	380.0	160.0	7.17
Business inspections (No. of businesses)	121,927,113	91,720,756	110.0	66.0	1.89
Market linkage services (No. enterprises)	59,910,770	26,188,000	85.0	28.0	0.88
Cooperative mobilization and outreach services (No.of cooperatives)	16,784,527	15,354,350	93.0	29.0	0.11
Tourism promotion services /Trade shows / Tours conducted (No.of faculties)	116,183,000	31,832,000	116.0	18.0	1.28
Programme Performance (Outputs)	5,149,559,475				81.55%
Outcome Indicator			Annual Target	Achieved	Score (%)
Percentage of generated technologies promoted to value chain actors			0.6	0.634	106
Percentage of value chain actors applying technologies			0.6	0.608	101
Programme Performance (Outcomes)					100%
Overall Programme Performance					89.2%

Source: Field findings



Good performance was mainly due to timely disbursement of funds in the first three quarters of the year. Implementation of quarter four planned activities was delayed by the COVID-19 pandemic since movements were restricted during the lockdown. Procurements were still ongoing for some capital items in most DLGs. Programme implementation in Katakwi and Amuria districts among others was slow due to locust infestation which put most of the field activities at standstill. Identification and mapping was being done before farming activities could resume. The farmer to extension worker ratio was still overwhelming, which limited access to advisory services by most farming households.

Below are examples of the outputs delivered and challenges experienced in some monitored districts:



Improved tomato and banana growing and yields at the farm of Maila Tubana Mixed Farmers' Group in Mbale District

Mbale District: Miale Tubana Mixed Farmers' Group in Miale Village, Monni Parish, Mbale District is composed of 75 members who were trained and monitored by the DLG extension workers. This empowered and equipped them with knowledge and skills on agronomic and post harvest handling practices which greatly improved their farm yields. Through their farm proceeds, the group opened a Savings and Credit Cooperative Organisation (SACCO) where they invest their savings.

Omoro District: There was lower outreach of extension services to farmers due to: lack of transport means for the extension workers; lack of community

access roads; impassable roads in the hard to reach areas; and flooding from Hima River in Lakwana subcounty that washed away the bridges.

Katakwi District: Crop survival rate was very low (between 30%-40%) due to dry weather and flooding. The most drought worst hit areas were in Toroma dry belt. The farmers preferred livestock based enterprises that are more resistant to climate related catastrophes.

3.5.3 Challenges

- i) Non-compliance with Public Financial Management (PFM) laws and regulations – delayed approval and disbursement of funds by Accounting Officers; commitment of GoU above the funds available in a financial year; and poor accountability and reporting on grant use by LGs.
- ii) Inadequate extension services due to under staffing, the farmer to extension worker ratio is too high; limited transport means for the the available staff; impassable roads in the hard-to-reach areas.
- iii) The COVID-19 pandemic dragged most of the quarter four planned activities due to restricted movements and the SOPs that were put in place by the Ministry of Health during the lockdown.
- iv) Loss of crop and animal production due to extreme weather conditions including drought, floods, hailstorms, exacerbated by the rising incidence of pests and diseases mostly the locust infested areas of Karamoja.



- v) Delayed implementation of the extension grant as some districts had difficulties in transitioning to the Integrated Financial Management System (IFMS) and Q1 funds were accessed in December 2019.

3.5.4 Recommendations

- i) The MFPED and MoLG should ensure compliance of LGs to PFM laws and regulations and enforce penalties against persistent non-compliance.
- ii) The MFPED, MoPS, MAAIF and LGs should prioritise recruitment and equipping more extension workers.
- iii) The MAAIF and LGs should promote irrigation and mechanisation at farm level and promote dissemination of climate smart technologies.

3.6 Ministry of Agriculture, Animal Industry and Fisheries

3.6.1 Background

The Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)'s mission is to transform subsistence farming to commercial agriculture through six programmes: Crop Resources; Directorate of Animal Resources; Directorate of Agricultural Extension and Skills Management; Fisheries Resources; Agriculture infrastructure, mechanisation and Water for Agricultural Production; and Policy, Planning and Support Services. Four programmes were monitored as presented below.

Crop Resources Programme

3.6.2 Enhancing National Food Security Through Increased Rice Production in Eastern Uganda

Background

Implemented in Bugiri and Bugweri districts, the Enhancing National Food Security through Increased Rice Production in Eastern Uganda (ENRP) sub-programme aims to ensure food security through increased production of lowland rice resulting in sustainable improvement in welfare of beneficiary poor communities. The key interventions focus on water storage infrastructure for irrigation and development of land and irrigation systems. The project is jointly implemented by GoU and private sector stakeholders (Busowa Cooperative Society, Ltd. in Bugiri District and Pearl Rice Ltd in Iganga District).

The project total cost is estimated at US\$ 71.16m, of which the Islamic Development Bank (IsDB) will provide US\$ 34.05m. The approved budget for the project for FY 2019/20 was Ug shs 41.599bn, of which Ug shs 2.58bn (6%) was released and Ug shs 2.44bn (95%) spent by 30th June 2020. This was poor release performance and good resource absorption.

Performance

The overall performance of the ENRP sub-programme in FY 2019/20 was poor rated at 17.2% (table 3.7). Performance was poor as the main output of establishing irrigation schemes was not yet implemented. The project was lagging behind because of multiple levels of approvals that were needed to be secured from the donor (IsDB) prior to proceeding with any procurement process.

The activities implemented by 30th June 2020 included farmer group assessment, profiling, mobilisation and training; soil testing; setting up of 11 demonstration sites for rice technologies, and labour saving technologies; holding steering committee meetings; and procurement of key staff, equipment, furniture and vehicles. The process of recruiting a consultant was ongoing

**Table 3.7: Performance of Enhancing National Food Security through Increased Rice Production in Eastern Uganda by 30th June 2020**

Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)
Policies, Laws, guidelines, Plans and Strategies (No .of staff)	200,000,000	200,000,000	10.00	10.00	0.48
Promotion of Production & Productivity of Priority Commodities (number of interventions)	4,554,999,962	2,382,054,426	4.00	3.00	10.95
Construction of Irrigation Schemes (number)	36,844,083,000	0	2.00	0.00	0.00
Programme Performance (Outputs)	41,599,082,962	2,582,054,426			11.43%
Outcome Indicator			Annual Target	Achieved	Score (%)
Percentage increase in yields of priority and strategic commodities			0.27	0.226	84%
Programme Performance (Outcomes)					28%
Overall Programme Performance					17.2%

Source: Field findings; IFMS and MAAIF Data

Challenges

- i) The project had a significant time lapse as implementation was supposed to have been completed between 2014-2018. Challenges of multiple levels of approvals needed to be secured prior to proceeding with any procurement process have delayed project start. The project got a two-year extension to June 2022.
- ii) COVID-19 interfered with project implementation to the extent that key activities such as negotiation meetings and signing of the MOU with Ministry of Trade, Industry and Cooperatives (MoTIC) were deferred.

Recommendations

- i) The MFPED, MAAIF and implementing partners should review and remove bottlenecks to implementation of the project, with particular focus on speeding up the approval processes by the donor as well as implementing agencies.
- ii) An evaluation of the feasibility and viability of this project should be done to restructure or scale back on some of the non-performing components.

3.6.3 National Oil Palm Programme

Background

The National Oil Palm Project (NOPP) is a government intervention that aims to sustainably increase rural incomes through opportunities generated by establishment of an efficient oil palm industry. The 10-year programme (29th November 2018 to 26th August 2028) is financed through a loan from the International Fund for Agricultural Development (IFAD) amounting to US\$75.820 million with a grant element equivalent to US\$1.210 million.



The project has three components, namely: i) Scaling up smallholder oil palm development, ii) Livelihoods diversification and resilience; and iii) Oil palm development framework. The project operates in four hubs: Buvuma Island, Mayuge, Masaka/Rakai, and Mukono/Buikwe in addition to addressing spillover activities in Kalangala District. The FY2019/20 approved budget for the NOPP was Ug shs 68.247bn (Ug shs 57.650bn from IFAD and Ug shs 10.597bn from GoU). By 30th June 2020, Ug shs 6.372bn (60%) of the GoU contribution was released and fully spent. The IFAD released Ug shs 19.16bn of which Ug shs 18.04bn (94.15%) was spent.

Performance

The overall performance of the National Oil Palm Programme in FY 2019/20 was good at 78.6% (table 3.8). The outbreak of COVID-19 negatively affected implementation of project activities.

Table 3.8: Performance of the National Oil Palm Programme by 30th June 2020

Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Qty	Physical performance Score (%)
Buvuma hub start-up team established (no .of staff recruited)	1,242,636,000	1,242,636,000	14	0	0
Land acquired for the nucleus estate establishment by Private Sector partner(hectares)	19,000,000,000	6,372,500,000	5000	3787	43.06
Key stakeholders in Mayuge and Buvuma sensitized on NOPP (meetings)	98,936,000	98,936,000	23	15	0.15
Tsetse fly control - traps deployed to tsetse fly infested areas of Kalangala district (number)	566,875,000	566,875,000	8	3	0.48
Report on status on management of, and critical areas of intervention in NARO Oil Palm trial sites, determined (number of interventions)	72,200,000	72,200,000	1	1	0.16
Buvuma farmers exposed to Oil Palm through visit to Kalangala district (no. of visits)	90,000,000	90,000,000	7	7	0.20
Ferry for Buvuma - Buikwe districts procured (number)	8,778,887,000	8,778,887,000	1	0	0.00
Office block and three fertiliser stores constructed (number)	830,873,000	830,873,000	4	3	1.41
Report of situational analysis of oilpalm growers and non-growers livelihoods and social risks in Kalangala and Buvuma (number of interventions)	94,850,000	94,850,000	4	3	0.16
Household mentors in Kalangala recruited, trained and deployed (number)	170,198,000	170,198,000	30	30	0.39
Draft Gender & Youth Strategy (number)	63,090,000	63,090,000	1	1	0.14
Beneficiaries sensitized on Gender, Nutrition and HIV in Kalangala and Buvuma DLG (number of beneficiaries)	447,320,000	447,320,000	100	118	1.01



Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Qty	Physical performance Score (%)
PMU Operations and routine monitoring (quarterly)	2,671,682,000	,620,977,000	4	3	28.72
Programme Performance (Outputs)					75.88%
Outcome Indicator			Annual Target	Achieved	Score (%)
Percentage increase in yields of priority and strategic commodities			0.27	0.226	84
Programme Performance (Outcomes)					84
Overall Programme Performance					78.6%

Source: Field findings; MAAIF Q4 Progress Report FY 2019/20

The following interventions were implemented by 30th June 2020:

- The project handed over 5,410 ha, of the 7,700-ha purchased. All the land was cleared of all encumbrances, including previous tenants. However the land acquisition and compensation of tenant's activity were affected by the COVID-19 pandemic resulting in government land deals being halted.
- The KOPGT supplied inputs to oil palm farmers mainly fertilisers.
- The National Pricing Committee that was composed of Ministry of Trade, MAAIF, NOPP office and MFPED representative was appointed to undertake price reviews
- Procurement of seven office trucks, two boats with outboard engine that transported fruits from out-layer island to the main island were done by GoU and hiring of private trucks to ease transportation of fresh fruit bunches. The two ferries were still under construction at 40% completion.
- In Mukono hub, arising from the oil palm research trials at the National Coffee Research Institute (NaCORI) of the National Agricultural Research Organisation (NARO), the suitable areas for oil palm establishment were confirmed. .
- In Mayuge hub, the Mayuge Oil Palm Growers Association was registered with 6,221 oil palm farmers registered.
- In Masaka hub, 34,000 ha were identified in Sango Bay in Kyotera District, as suitable for oil palm plantation.

Challenges

- i) Implementation was slowed by: a) delayed recruitment of staff most of whom joined the project in January; b) the COVID-19 lockdown, c) heavy rains and increase in the water levels of Lake Victoria caused some disruptions in access to the islands, submerging landing sites and damaging roads.
- ii) The planning/project inception processes took longer than anticipated and IFAD granted a “no objection” on 7th January, 2020 which resulted in only three months of active implementation in FY2019/20.



- iii) Farmers in the outlying islands of Bunyama and Bubembe, in Kalangala District, faced difficulty evacuating FFBs to the CPO mill.

Recommendations

- i) The MAAIF should fast track staff recruitments and procurements of capital items under this project

3.6.4 Uganda Multi-sectoral Food Safety and Nutrition Project

Background

The Uganda Multisectoral Food Safety and Nutrition Project (UMFSNP) aims to increase production and consumption of micronutrient-rich foods and utilisation of community based nutrition services in smallholder households in project areas. The project is funded by a US\$ 27.64 million grant from the Global Agriculture and Food Security Programme (GAFSP) Trust Fund supervised by the World Bank; it was to be implemented during 1st July 2015 to 31st December 2019³. The project was granted a one year no cost extension up to 31st December 2020.

Project implementation was phased starting with five districts in July 2016 (Bushenyi, Ntungamo, Maracha, Nebbi, Namutumba); five districts in February 2017 (Isingiro, Kasese, Kabarole, Kyenjojo, Kabale), and five districts in July 2017 (Bugiri, Iganga, Arua, Kiryandongo, Yumbe). Operations extended to Rukiga, Bunyangabo, Pakwach and Bugweri districts due to redistricting.

The approved budget for the project in FY 2019/20 was Ug shs 23.325bn, of which Ug shs 23.070bn was grant financing and Ug shs 255 million the GoU counterpart funding. By 30th June 2020, the GoU had released Ug shs 200 million (78%), of which Ug shs 179.72million (90%) was spent. For donor finances, Ug shs 21.695bn was spent by JICA.

Performance

The overall performance of the UMFSNP sub-programme in FY 2019/20 was very good at 91.5% (table 3.9). Most of the planned outputs were delivered except few activities which were not done in schools that were closed due to COVID-19 challenges. Activities that were implemented prior the lockdown included: setting up of new and maintaining existing demonstration gardens; school based nutrition education for students and parent groups; holding community meetings to sensitise them about nutrition good practices and cookery demonstrations; and project monitoring and supervision. School nutrition committees for 1,500 primary schools were supported to develop and implement the Primary School Nutrition Action Plan.

Table 3.9: Performance of the Uganda Multisectoral Food Safety and Nutrition Project by 30th June 2020

Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)
Community mobilisation and establishment/strengthening of community- based institutions (meetings)	339,231,000	39,231,000	15.00	15.00	1.45
Enhancing nutrition services delivered through primary schools, PGs and LFs (number)	13,210,000,000	13,141,329,531	1500.00	1500.00	56.63

3 World Bank, 2014.



Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)
Agriculture support for school-based nutrition services (number)	750,000,000	656,027,832	1500.00	1500.00	3.22
Strengthened nutrition services through VHTs and HCII level (number of radio messages)	1,000,723,932	729,175,762	1620.00	872.00	3.17
Training to equip extension agents and school-and community-workers (no.of facilitators)	2,424,099,000	1,639,007,167	300.00	300.00	10.39
Supportive supervision and monitoring of nutrition activities at district level and below (number of field visits)	5,600,946,069	5,390,645,067	60.00	50.00	20.79
Programme Performance (Outputs)	23,325,000,001	21,895,416,359			95.66%
Outcome Indicator			Annual Target	Achieved	Score (%)
Percentage increase in yields of priority and strategic commodities			0.27	0.226	84
Programme Performance (Outcomes)					84
Overall Programme Performance					91.5%

Source: Field findings

Inputs (seeds, seedlings, fertilisers, pesticides) were procured to establish the 1,500 demonstration gardens in schools. A continuing challenge was the perception by the community members who thought the project should give them remuneration for participation in the project. In addition, planting materials and inputs were not easily available for farmers and community members interested in starting their own gardens.

Challenges

- i) Partial implementation of project activities due to delayed and intermittent disbursement of funds in November and December.
- ii) Poor monitoring and evaluation system for the project; limited reporting by schools about performance.
- iii) Inadequate capacity at school level for record keeping and complying with procurement and financial management guidelines.

Recommendations

- i) The MAAIF should ensure timely disbursement of funds to the districts and schools. The MFPED should ensure compliance of implementing ministries to the Public Financial Management (PFM) rules.
- ii) The MAAIF should strengthen capacity of key stakeholders in monitoring and reporting, procurement and financial management.



Directorate of Agricultural Extension and Skills Management

3.6.5 Department of Agricultural Extension and Skills Management

Background

The Department of Agricultural Extension and Skills Management (DAES), following the National Agricultural Extension Policy (NAEP) and the 2016 National Agricultural Extension Strategy (NAES), is mandated to support and guide Local Governments in planning and budgeting for extension services; set standards for service delivery; provide agricultural production information to MAAIF; and monitor and evaluate agricultural extension services in order to strengthen accountability and transparency in agricultural extension service delivery.

The approved budget for the DAES sub-programme for FY 2019/20 was Ug shs 0.794bn, of which Ug shs 0.474bn (60%) was released and Ug shs 0.467bn (98%) spent by 30th June 2020. The areas sampled for monitoring under this sub-programme are presented in Annex 1.

Performance

The overall performance of the DAES sub-programme in FY2019/20 was good rated at 89.7% (table 3.10). Performance at output level was very good because most of the planned activities were achieved. However, the outputs did not have a significant impact on the outcomes. By 30th June 2020, strengthened technical backstopping of agricultural extension systems was undertaken at MAAIF and the DLGs through building capacity of extension service providers on production practices for livestock, crops and fish.

Table 3.10: Performance of the Department of Agricultural Extension and Skills Management by 30th June 2020

Output	Annual Budget (Ug shs 000')	Cum. Receipt (Ug shs 000')	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)
Output: 01 Strategies, Policies, Plans and guidelines	295,895	260,140	3.00	3.00	37.22
Output: 02 Administration, HRD, and Accounting	59,080	45,000	3.00	3.00	7.43
Output: 03 Agricultural extension co-ordination strengthened	324,000	119,500	5.00	5.00	40.76
Output: 04 Provision of Agricultural production extension service	116,000	49,000	6.00	6.00	14.59
Total	794,975	473,640			100
Programme Performance (Outputs)					100
Outcome Indicator	Annual Target	Achieved	Score (%)	Remarks	
Percentage of value chain actors applying technologies	0.6	0.608	101		
Percentage change in production and productivity of priority and strategic commodities	0.31	0.343	111		
Programme Performance (Outcomes)					71%
Overall Programme Performance					89.7%

Source: Field findings



The MAAIF further conducted compliance monitoring, supervision and backstopping activities of the LG Production Departments and provided a compliance tool in 20 selected districts. Agricultural extension training manuals and materials were printed and disseminated across the country. They included: 8,000 farmer institutional development manuals for developing farmer organisations; 1,000 manuals on beans, maize and 5,000 copies on dairy for agriculture extension officers. Promotion of value chain approaches by all service providers through the village agent model, farmer field schools, farmer-to-farmer and nucleus farmer models was undertaken. Three MAAIF officers undertook a benchmarking study tour on research and extension services in western Kenya.

Challenges

- i) Un-coordinated and limited linkage between DAES and other sister departments like NAADS-OWC affected the effectiveness of extension service delivery.
- ii) Limited oversight and supervision by MAAIF to enforce compliance by LGs due to delayed disbursements, inadequate budget, and delayed enactment of the National Agricultural Extension Bill which affected the ministry's capacity to register, accredit and coordinate service providers.
- iii) Non-compliance by some LGs in using disbursed resources for unplanned activities and not reporting performance in time. Problematic districts reported by MAAIF by issue included: Diversion of vehicles and motorcycles from the Production Departments to politicians – Kapchorwa, Kabarole, Kasese; poor reporting – Iganga, Kabarole, Kasese, Mukono, Wakiso, Nwoya, Amuru, Kabale, Sironko, Oyam, Masindi and Kween.

Recommendations

- i) The MAAIF should effectively coordinate the different extension service delivery actors in the sector to improve outreach to farmers and farmer groups.
- i) The MFPED and MAAIF should improve oversight and compliance of LGs to PFM guidelines and regulations, and also expedite the enactment of the National Agricultural Extension Bill to strengthen the capacity of the directorate to register, accredit and coordinate extension service activities.
- ii) The MFPED and MAAIF should review and revise the budget ceiling for extension services to cater for the increased staff recruitments and their operational expenses at the LG level.

3.6.6 Department of Agricultural Investment and Enterprise Development

Background

The overall objective of the Department of Agricultural Investment and Enterprise Development (DAIED) is to support sustainable agribusiness development and management, public and private sector investments and emerging commercially viable agricultural enterprise for improved food security and household income. Key interventions focus on capacity building of key stakeholders in agri-business and group dynamics, provision of post-harvest handling equipment, and promotion of commodity multi-stakeholder platforms.

The approved budget for the DAIED for FY 2019/20 was Ug shs 1.859bn, of which Ug shs 1.452bn (78%) was released and fully spent by 30th June 2020. Monitored areas are presented in Annex 1.



Performance

The overall performance of the DAIED sub-programme in FY2019/20 was very good rated at 100% (table 3.11). All the planned outputs were achieved. Key achievements included: Training and sensitisation of 60 farmer groups in Mid-Western Uganda with the objective of up scaling agriculture commercialisation. Three more trainings in agribusiness skills, value addition and post-harvest management in Western, Northern and Eastern Uganda were conducted for value chain actors. In addition, cottage industries which required support to certify their products and attain the standards set by Uganda National Bureau of Standards (UNBS) to sell their products in Luwero and Masaka districts were profiled and mapped. The interventions focused on improving value addition in dairy, maize, coffee, fruits and vegetable value chains.

Table 3.11: Performance of the Department of Agricultural Investment and Enterprise Development by 30th June 2020

Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)	Remark
Output: 01 Strategies, Policies, Plans and guidelines	1,323,267	1,099,707	6.00	6.00	71.21	Agricultural investment and enterprise development was promoted.
Output: 03 Agricultural extension co-ordination strengthened	101,682	69,490	3.00	3.00	5.47	Enhanced institutional capacity to facilitate agricultural commercialization.
Output: 05 Provision of Value Addition extension services	433,399	282,000,	1.00	1.00	23.32	Support activities of the Agriculture Investment Centre were conducted.
TOTAL	1,858,349	1,451,198				
Programme Performance (Output)			100%			
Outcome Indicator	Annual Target	Achieved	Score (%)	Remark		
Percentage of generated technologies promoted to value chain actors	0.6	0.634	106	Number of farmer groups for priority/strategic commodities trained.		
Percentage of value chain actors applying technologies	0.6	0.608	101			
Programme Performance (Outcomes)			100			
Overall Programme Performance			100			

Source: Field findings



The MAAIF further profiled potential agriculture investment opportunities for possible public private partnership with the agriculture sector. The Agriculture Investment Centre activities were also supported to undertake value chain studies of cost and profitability analysis, and profiling of cottage industries. The MoU with private sector for joint ventures on value addition and processing infrastructure was signed and at implementation level. Implementation sites for the proposed agro-processing and value addition project were verified in Gulu, Arua and Lira districts.

Challenges

- i) Budget cuts that limited data collection on agribusiness and value addition activities country wide.
- ii) Limited equipment used in executing field activities.
- iii) Limited office space for staff.

Recommendation

- i) The MAAIF should provide office space to staff to enable them have a good working environment.
- ii) The MAAIF should prioritise increased allocations to agri-business and value addition development activities.

Directorate of Animal Resources Programme

3.6.7 Northern Uganda Farmers Livelihood Improvement Project

Background

The Northern Uganda Farmers Livelihood Improvement (NUFLIP) Project is a five year (November 2015–November 2020) intervention that is financed by Japanese International Cooperation Agency (JICA) grant amounting Ug shs 13.250bn and GoU funding totaling Ug shs 3.975bn. The project objective is to establish an effective agriculture extension system based on a market oriented Livelihood Improvement Approach to improve farmers' livelihoods in the Acholi sub-region.

The project enhances knowledge and skills of farmers and extension service providers in vegetable production for the market. The stakeholders undertake market surveys to select commercially viable vegetables after which they are trained on the agronomy of the selected commodities by GoU and JICA experts. The project started in 2017 in three pilot districts (Gulu, Kitgum and Pader). In FY2018/19, it was rolled to five additional districts (Amuru, Nwoya, Omoro, Agago, and Lamwo) and is implemented in four sub-counties within each district, targeting two to four groups in each sub-county.

The approved budget for the NUFLIP in FY 2019/20 was Ug shs 3.650bn, of which Ug shs 3.340bn was to be contributed by JICA and Ug shs 310 million by GoU. By 30th June 2020, the GoU had released Ug shs 169 million (55%) which was fully spent. For donor finances, Ug shs 1.3bn was released and fully spent.

Performance

The overall performance of the NUFLIP sub-programme in FY 2019/20 was good rated at 86.9% (table 3.12). Most planned activities were implemented including training of farmer groups, market surveys, end-line data collection, irrigation field trials and distribution of 44 extension packages. Sanitary materials to prevent spread of COVID-19 were distributed to participating farmers: six vegetable items - tomatoes, cabbage, eggplants, onions, green pepper and water melon were identified and appropriate cultivation



methods developed. The farmers were linked to agro-input dealers and buyers which led to increased production and sales and ultimately improved household livelihoods.

Table 3.12: Performance of the Northern Uganda Farmers Livelihood Improvement Project by 30th June 2020

Output/Sub programmes	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)
Skills and knowledge on market oriented agricultural production built in Acholi sub-region (No. of extension staff trained)	1,930,604,583	482,774,861	46.00	46.00	33.50
Production and productivity of vegetables in Nwoya, Amuru, Omoro, Agago, Lamwo, Gulu, Kitgum and Pader increased. (Number of 6 vegetable types cultivated)	2,166,304,583	478,300,861	6.00	6.00	37.59
Nutrition status of participating households enhanced through training (No. of farmer groups trained)	1,665,704,583	466,027,861	30.00	20.00	28.91
Programme Performance (Outputs)					100.00
Outcome Indicator			Annual Target	Achieved	Score (%)
Percentage change of farming households that have adopted commercialised agriculture			0.2	0.083	42
Percentage increase in yields of priority and strategic commodities			0.27	0.226	84
Programme Performance (Outcomes)					63
Overall Programme Performance					86.9

All the targeted vegetables were cultivated. However due to the COVID-19 lockdown and restrictions on movement, some data was not collected and 10 participating farmer groups were not fully trained which affected production and utilisation of vegetables.



Vegetable growing by Waribu Tam Farmers Group in Pida-Loro Village, Ongako Sub-county in Omoro District under the NUFLIP

Acholi sub-region: Field activities such as training, land preparation, sowing and weeding were suspended in the first season (February-July 2020) due to COVID-19 lockdown disruptions hence affecting planned activities. Previously, farmers were trained in groups of 30 individuals. In the second season, in line with the social distancing guidelines, training was conducted in subgroups of 5-7 members of which each two key farmers were tasked to teach the rest. Activities for the first season were deferred to the second season, including nursery bed preparation and transplanting to the field of the vegetable seedlings.



Challenges

- i) Less implementation of planned activities due to COVID-19 lockdown restrictions and the subsequent budget cuts.
- ii) High crop mortality and reduced production due to limited extension service support to farmers during the lockdown and unpredictable weather patterns. Flooding from the month of April to September was experienced in the districts of Agago in Lumiyo sub-county, Lamwo in Palago sub-county, and Amuru in Elegu sub-county that led to 60%-100% destruction of crops.
- iii) Difficulty in assessing project performance due to non-availability of comprehensive financial data on donor funding.

Recommendations

- i) The MAAIF and LGs should strengthen extension service delivery to ensure wider outreach and accessibility to all categories of farmers.
- ii) The MAAIF and LGs should promote climate smart agricultural technologies such appropriate irrigation technologies.

3.6.8 Regional Pastoral Livelihood Improvement Project

Background

The Regional Pastoral Livelihood Improvement Project (RPLRP) aims to enhance livelihood resilience of pastoral communities in cross border prone areas (Uganda, Kenya and Ethiopia) and build capacity of Government to respond effectively to emergencies such as drought and animal disease epidemics. The project is funded through an International Development Association (IDA) loan amounting to US\$40 million for Uganda for the period 30th June 2014 to 31st December 2019. However, project effectiveness delayed by two years due to slow loan approval processes. The project was granted a one-year extension to March 2021 to allow contractors to complete construction of livestock infrastructure.

The RPLRP is implemented in 14 districts of: Kabong, Kotido, Abim, Moroto, Nakapiripirit, Napak, Amadat, Kween, Bukedea, Kumi, Amuria, Katakwi, Nabilatuk and Kapelebyong. The project focuses on a) natural resource management; b) market access and trade; c) livelihood support; d) early warning and disaster response and e) knowledge management and research. The approved budget for the RPLRP was Ug shs 58.41bn, of which Ug shs 42.25bn (72%) was released and Ug shs 39.6bn (93%) was spent by 30th June 2020.

Performance

The overall performance of the RPLRP sub-programme in FY2019/20 was good rated at 76.4% (table 3.13). Construction of most of the planned infrastructure was completed including livestock markets, animal holding grounds, cattle crushes, slaughter sheds, quarantine stations, and border check points and valley dams and tanks. For example, the following infrastructure was commissioned in Teso and Karamoja sub-regions on 14th September, 2020: 12 cattle markets, 12 slaughter sheds, 6 quarantine stations, 4 holding grounds, 3 border check points and 60 cattle crushes. The commissioned infrastructure had larger and improved holding capacity than the older existing structures, furnished with proper weighing, loading and hygienic facilities.



Table 3.13: Performance of the Regional Pastoral Livelihood Improvement Project by 30th June 2020

Output/Sub programmes	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)
Infrastructures for water resources constructed (4 dams and 8 valley tanks)	18,176,497,075	11,176,497,075	12.00	8.00	31.12
Rangelands and ecosystems with trans boundary implications rehabilitated (hectares)	263,000,000	163,000,000	360.00	320.00	0.45
Conflict prevention, management and resolution strategies and approaches harmonised (meetings)	156,966,462	156,966,462	4.00	4.00	0.27
Livestock market infrastructure constructed- 12 Markets, 12 Slaughter sheds, 3 Auction grounds, 3 Checkpoint (number)	24,609,416,700	23,609,416,700	30.00	24.00	35.13
Regional trade policies and standards harmonised and simplified (meetings)	369,208,120	269,208,120	3.00	2.00	0.58
Crushes constructed (number)	7,776,145,231	2,519,599,231	72.00	68.00	13.31
Breeding strategy and breed improvement programmes supported (number of interventions)	1,648,814,243	948,814,243	5.00	4.00	2.82
Early warning systems operationalised (number of activities)	5,411,548,169	3,411,548,169	10.00	10.00	9.26
Programme Performance (Outputs)	58,411,596,000	42,255,050,000			92.95%
Outcome Indicator			Annual Target	Achieved	Score (%)
Percentage change in number of animals produced for market			0.31	0.177	57
Percentage change in rejection of animal and animal products due to poor quality and safety			0.1	0.08	80
Programme Performance (Outcomes)					46%
Overall Programme Performance					76.4%

Source: Field findings

Communities in the project areas were trained to set up and manage 48ha of rehabilitated rangelands; and pasture seed banks were established to support livestock production. However, despite the overall good performance of the project, some infrastructures were yet to be completed. For example, in Amuria District, construction of valley tank was about 60% to 70% because the water traps, borehole, weighing scale and fencing had not been installed. In Bukedea District, construction of the cattle market, holding



ground, slaughter house, cattle crushes and valley tank was incomplete. Delays in the execution of works in Teso sub-region was due to the outbreak of desert locust and the COVID-19 lockdown.

Completion and supervision of works in Karamoja sub-region was hindered by torrential rains that led to flooding of sites and insecurity due to cattle rustlers which led to loss of lives of workers. Access to the construction sites in Kabong, Kotido, Moroto and Amudat was limited during some months due to insecurity.



Housing (left) and animal holding grounds (right) established at Ajesa Village Getom Sub-county in Katakwi District Teso sub-region

Challenges

- i) Delayed completion of some works due to: a) Lockdown restrictions, b) insecurity, c) inadequate supervision by MAAIF and LGs; the LGs lacked monitoring funds d) inadequate capacity of contractors who were handling multiple sites at the same time, and e) climatic vagaries
- ii) Low readiness for sustainability of the infrastructure by LGs after handover due to weak coordination, involvement and information sharing by MAAIF with district staff and lack of maintenance and sustainability plans and budgets.
- iii) The project set up numerous community structures whose capacities had not been fully developed before project funding ended.

Recommendations

- i) The MAAIF should improve information sharing and involvement of LGs in project planning, contracting, implementation and supervision of centrally implemented infrastructure projects.
- ii) The MAAIF should work closely with the DLGs to continue building capacity of user committees in managing and sustaining the facilities. The districts should incorporate mechanisms to ensure functionality and sustainability of the investments put in place by the project.
- iii) The MAAIF should improve the contracting processes to award infrastructure works to competent contractors.



Fisheries Resources Programme

3.6.9 Support to Sustainable Fisheries Development

Background

The Support to Sustainable Fisheries Development Project is a merger of all fisheries interventions in MAAIF including the uncompleted works under previous donor funded projects. The objective of the five-year (FY 2015/16 - FY 2019/20) GoU funded project is to promote sustainable development of fisheries through restocking and strengthening management of restocked water bodies; strengthening monitoring on all water bodies; infrastructure development along the value chain; and control of weeds and water hyacinth.

The approved budget for Support to Sustainable Fisheries Development Project for FY2019/20 is Ug shs 8.239bn, of which Ug shs 7.223bn (87.7%) was released and Ug shs 7.193bn (99.6%) spent by 30th June 2022.

Performance

The performance of the Support to Sustainable Fisheries Development Project in FY 2019/20 was good rated at 96.7 % (table 3.14). This performance was due to the enhanced enforcement by the Uganda Peoples Defense Forces (UPDF) of fisheries regulations and frequent monitoring and supervision of project activities of lake bodies.

Table 3.14: Performance of the Support to Sustainable Fisheries Development Project by 30th June 2020

Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)
Output: 01 Policies, laws, guidelines, plans and strategies (No. of activities)	1,000,000,000	600,000,000	8.00	5.50	12.14
Output: 02 Fisheries Quality Assurance and standards (No. of activities)	1,862,088,119	1,750,299,928	7.00	4.50	15.46
Output: 04 Promotion of sustainable fisheries (No. of activities)	2,914,999,999	2,888,250,000	11.00	7.50	24.35
Output: 06 Improved market access for livestock and livestock products (No. of activities)	2,000,000,000	1,525,000,000	4.00	2.50	19.90
Output: 83 Fisheries Infrastructure Construction (No. of activities)	462,000,001	460,000,000	4.00	3.00	4.22
Programme Performance (Outputs)	8,239,088,119				76.06%
Outcome Indicator			Annual Target	Achieved	Score (%)
Percentage change in yield per production system			26%	27%	105
Percentage change in fish trade volumes and value			29%	29%	100
Percentage change in fishing effort in major water bodies			18%	36%	200
Programme Performance (Outcomes)					100
Overall Programme Performance					96.7

Source: Field findings



Enforcement operations were undertaken by 16 Fisheries Protection Force (FPF) sectors in Dolwe, Jinja, Buvuma, Mukono, Wakiso, Mpigi, Mayuge, Masaka, Kalangala, Masaka Landing site, Kasese, Nakasongola, Amolatar, Kwania, Kayunga which minimised illegal fishing activities. This intervention greatly increased fish stock on Lake Victoria. Procurement for the technical consultancy for the pre-feasibility study for the Koki lakes, Nabugabo Lakes, Lake Victoria, and Lake Kyoga Complex was ongoing.

Most projects’ planned procurements were affected by the COVID-19 pandemic. These included procurement of a technical consultant to undertake consultancy for the pre-feasibility studies, procurement equipment for establishment of 6 biological control stations among others.

Renovation of fish ponds at the fish fry centre in Bushenyi District was completed using PMG funds. The fish fry is fully operational producing 40,000 Nile Tilapia fries per cycle which are sold to farmers at a subsidised rate. However, they are unable to produce cat fish fries due to lack of a thermo stat machine that automatically regulates the water temperature.

Procurement of 935 Fish Vessel Identification plates for Lakes Edward, George and Albert was completed. A survey to identify and map Kariba weed hotspot areas on lakes Kyoga and Albert in collaboration with the National Fisheries Resources Research Institute was undertaken.

Implementation challenges

- i) Low output achievement due to reallocation of funds from original project activities of infrastructure development to facilitating inland and lake patrols by the UPDF. It is highly unlikely that the project will achieve its objectives.
- ii) Late disbursement of funds in the third or fourth quarter making it hard to initiate and conclude procurement processes in the remaining period of a financial year
- iii) Lack of a thermo stat machine at the fish fry center in Bushenyi.

Recommendations

- i) The MAAIF should prioritise fisheries infrastructure development.
- ii) The MAAIF should release funds to the respective projects in time.
- iii) The MAAIF and Bushenyi DLG should finalise installation of equipment in the hatchery.

Overall MAAIF Vote Performance

The overall performance of MAAIF in FY2019/20 was 83.90% (table 3.15). The best performing programme was the Fisheries Resources Programmes, while the worst performing was Crop Resources. Poor performance was associated with delayed approval of requisitions and disbursements by Accounting Officer and Senior Managers, delayed access to donor financing and late initiation of procurements.

Table 3.15: Overall MAAIF Performance by 30th June 2020

Vote	Performance (%)
Crop Resources Programme	62.43
Directorate of Agricultural Extension and Management	94.85
Directorate of Animal Resources	81.65
Fisheries Resources Programme	96.70
Average MAAIF Performance	83.90%

Source: Field findings



3.7 National Agricultural Advisory Services/Operation Wealth Creation

3.7.1 Introduction

The Government has been implementing the National Agricultural Advisory Services (NAADS) since 2001 to increase food and nutrition security and incomes of farming households. The programme was restructured in FY2014/15 to deliver the Operation Wealth Creation (OWC) intervention that focuses on: provision of strategic commodities to support multiplication of planting and stocking materials; management of agricultural input distribution chains; and value addition and agribusiness business development.

Performance

The NAADS Secretariat approved budget for the FY 2019/20 was Ug shs 145.894bn which was fully released and Ug shs 145.7bn (99.8%) spent by 30th June 2020.

Agricultural Advisory Services Programme

The NAADS/OWC has one programme - Agricultural Advisory Services with two sub-programmes: 01 Headquarters, and 0903 Government Purchases. Both sub-programmes were monitored.

3.7.2 Government Purchases

Background

The Government Purchases sub-programme mainly focuses on provision of strategic inputs and commodities to farmers. This sub-programme accounted for 98% of the total allocation to the Agricultural Advisory Programme. The approved budget for the Government Purchases sub-programme for FY2019/20 was Ug shs 140,827bn, of which Ug shs 140,823bn (100%) was released and Ug shs 140,595bn (100%) spent by 30th June 2020. The release and absorption performance was very good.

Performance

By 30th June 2020, the NAADS Secretariat had supported farmers and farmer groups with planting and stocking materials for strategic commodities, value addition machinery, and agro- processing equipment.

Food security intervention inputs

Under the food security initiative, 2,932,332kgs of maize seed were distributed to 125 DLGs as well as to constituencies through the Members of Parliament (MPs); 632,187 banana suckers, 70,651 bags of cassava were distributed to Gulu Catholic Archdiocese in Amuru District under the Cassava Commercialisation Project, and 4,080 bags of seed potato were also distributed. Most districts complained about the inadequate allocated quantities especially for food security crops.



Narocas cassava cuttings beneficiary, Mr. Atubu Ambrose of Aduka Cell, Eastern Ward, Amuria T/C in Amuria District

In Masaka DLG, the distribution of maize catered for less than 10% of the farmers' needs. Some districts like Mbale had not yet received maize, beans, seed potato and cassava by 1st September, 2020. In Amuria District, maize seed was not received despite the allocation. Late delivery of inputs was also reported. For example, in Packwach, maize was rejected due to late delivery.



COVID-Emergency allocations of vegetable seeds and cassava cuttings

To mitigate the negative effects of the COVID-19 pandemic disruptions on food security, emergency procurement of planting materials was undertaken to support agricultural production for season A, 2020. These included cassava cuttings (175,000 bags); onion seeds (400kgs); amaranth seeds (175,000 bags, egg plant seeds (27,800 sackets); and sukuma wiki (27,800) sackets which were distributed to 124 districts. The planting materials were still being delivered to districts by 1st September, 2020 despite the intended intervention targeting season A, 2020 which runs from March – June. All the allocated vegetable quantities were delivered apart from pumpkin seeds. Delivery of 1,440 bags of cassava cuttings was only noted in Amuria District. Delays in the delivery and distribution of planting materials was attributed to the COVID-19 lockdown related measures and guidelines.

Strategic crop and livestock commodities

Procurement and distribution of such inputs included: cashew nuts seedlings (166,695) distributed to 28 DLGs, tea seedlings (3,568,393), an additional 35million tea seedlings were distributed to farmers in Buhweju District, mango seedlings (814,817) distributed to selected priority fruit clusters, 111,804 apple seedlings, and 160 heifers distributed to selected districts in Bugisu and Kigezi regions, 1,340 (pigs) gilts and boars distributed to selected districts, and 10,000 day old chicks, 24,000kgs of chick and duck mash, and 20,000kgs of growers mash were also distributed. The cashew nut seedlings survival rate was less than 10% for some varieties. For example, out of the 10 AC43 variety seedlings received by Mr. Alou Stephen, a farmer in Amuria, only one survived.

This was attributed to poor handling during transportation and harsh climatic conditions. The survival rate of heifers distributed in Acholi region in FY 2018/19 was low. This was due to; a) inadequate knowledge and skills among farmers in regard to looking after improved breeds, b) abrupt delivery of animals when farmers were not ready to look after them, c) lack of funds to sustain the animals.

Support to Atiak sugar cane production in Northern Uganda

Support was also given to members of Atiak Sugar Cane OutGrowers Cooperative Society Limited in Northern Uganda (Amuru and Lamwo districts). Key achievements included: bush clearing (13,841 acres), ploughing (8,455 acres), land harrowing (8,353 acres), land furrowing (7,943 acres), seed cane (23,721 tons), fertiliser application: 7,906 bags (50kgs bag) of DAP fertilizers, planting (7,907 acres) and established 132.8kms of farm roads.

Specialised Machinery and Equipment

To increase farm production and productivity, 280 tractors and their matching implements were delivered and distributed to farmer groups in 119 DLGs. However, a number of tractor beneficiaries reported frequent breakdown of the disc attachment on the tractors, in addition to the general poor quality of equipment, mostly the 40 horse power type. In Iganga District, two tractors given to Kiwemba Farmers' Cooperative Society in Nakalama Sub-county could not be used during the rainy season because the soil was too heavy for the 40 horse power, and could only be appropriately used during dry seasons.

To promote water for production initiatives, 14 solar water pumping systems were procured and installed in 14 sites, in addition to the ongoing delivery and installation of 21 solar powered water pumping systems for irrigation purposes in selected districts.



Value addition machinery and agro-processing equipment support to farmer groups included 20 sets of maize milling equipment, six sets of feed milling equipment to 21 DLGs, additional 19 sets of small-scale grain milling equipment for selected districts were procured, eight sets of milk coolers and matching generators were distributed to dairy groups in eight DLGs, however the milk cooler given to Amuria Multi-Purpose Cooperative Society in Amuria District was rejected because the group had requested for a smaller size.

Construction and equipping of four fruit processing factories was almost complete with construction progress at 85% in Yumbe, Kayunga, Kapeeka and Nakaseke. Delays in execution of civil and installation works were attributed to disruptions caused by the COVID-19 lockdown and other financial and operational related challenges. Procurement of 12 MT/Hr multi-fruit processing facility (factory structures and equipment) for Nwoya was cancelled due to non-responsiveness of bid to requirements.

Challenges

- i) Inadequate extension services tagged to inputs distribution led to poor handling and management of inputs provided to the farmers. This, coupled with the low capacity of suppliers, led to late delivery and distribution of inputs to farmers.
- ii) Inadequate quantities of inputs, especially the food security crops posed challenges during distribution. Each farmer was given small quantities that did not significantly impact on production, household incomes and food security.
- iii) The COVID-19 pandemic lockdown restrictions on mobility and social distancing guidelines affected farmers' access to extension services, inputs and markets as well as implementation of NAADS-OWC programmes especially the distribution of inputs, civil and installation works.
- iv) Unpredictable harsh climatic patterns in most parts of the country affected timely distribution of seeds for food security crops and yields. Flooding was experienced in areas surrounding lakes and rivers. Rwabitoke a farming island in Jinja District was completely submerged due to raising water levels in L. Victoria.

Recommendations

- i) The MAAIF should consider re-focusing the resources to economically viable interventions such as providing value addition equipment and productivity enhancing inputs like fertilizers.
- ii) The MAAIF should strengthen the extension delivery system to increase farmer access.
- iii) The MAAIF and LGs should promote climate smart agriculture.

3.7.3 Head quarters

The Headquarters sub-programme focuses on the administration and management of the Government Purchases sub-programme. The approved budget for FY 2019/20 was Ug shs 5,067bn, of which Ug shs 4,410bn (87%) was released and Ug shs 4,406bn (100%) spent by 30th June 2020.

Performance

The NAADS Secretariat coordinated and managed the procurement and distribution of inputs, tractors, value addition equipment, and supported value chain development. The detailed findings of this sub-programme in the monitored districts are presented in table 3.16.



Challenges

- i) Inadequate inputs and equipment procured and distributed to farmers due to re-allocation of funds to accumulated arrears from FY2018/19 and support for Atiak Sugarcane Outgrowers Cooperative Society Limited; this made it difficult for the NAADS Secretariat to project the quantity of inputs to be availed to farmers during the March-May 2020 season.
- ii) Delayed delivery of agro-machinery and value addition equipment due to lengthy and complex procurement processes involving international competitive bidding procurement and COVID-19 pandemic lockdown restrictions and guidelines.
- iii) Inadequate extension services tagged to inputs distribution led to lack of preparedness of farmers to receive materials in many districts; and poor handling and management of inputs provided to farmers in DLGs.
- iv) Delayed and uneven patterns of rains in some parts led to late distribution of seed for food security crops.

Recommendations

- i) The MAAIF, NAADS/OWC and MFPED should adhere to the PFM guidelines to avoid accumulation of arrears and re-allocations of budgets mid-year.
- ii) The MAAIF and LGs should equip and facilitate the extension workers to improve monitoring and supervision of the NAADS/OWC programme.
- iii) The MAAIF and LGs should promote appropriate irrigation and water harvesting technologies at farm level to enhance production and mitigate against harsh climatic conditions.

Overall performance of the Agricultural Advisory Services programme

The overall annual performance of the NAADS/OWC in FY 2019/20 was very good (96.6%). Very good performance (93.2%) was also noted at output level because planting and stocking inputs and commodities, agro-machinery and value addition equipment were distributed as planned (table 3.16).

Table 3.16: Performance of Agricultural Advisory Services by 30th June 2020

Output	Annual Budget (Ug shs 000')	Cum. Receipts (Ug shs 000')	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)
Output: 06 Programme management and coordination (No. of activities)	5,067,601	4,405,829,441	32	17	8.53
Output: 15 Managing distribution of agricultural inputs (No. of exercises)	20,833,645	20,833,645	13	13	57.41
Output: 18 Support to upper end Agricultural Value Chains and Agribusiness Development (No. of activities)	2,315,000	23,833,645	5	4	5.10
Output: 22 Planning, Monitoring and Evaluation (No. of activities)	2,392,378	2,388,778	14	14	6.59



Output	Annual Budget (Ug shs 000')	Cum. Receipts (Ug shs 000')	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)
Output: 76 Purchase of Office and ICT Equipment, including Software (Sets of equipment)	83,000	83,000	3	3	0.23
Output: 77 Purchase of Specialized Machinery & Equipment-Tractors (Number of equipment)	31,00,000	31,00,000	45	45	8.54
Output: 14 Provision of priority agricultural inputs -MAIZE (KG)	1,215,852	1,101,276	253,040	253,040	3.34
Output: 14 Provision of priority agricultural inputs -BEANS (KG)	86,400	86,400	18,000	18,000	0,24
Output: 14 Provision of priority agricultural inputs -banana tissues (plantlets)	252,200	252,200	85,500	85,500	0.52
Output: 14 Provision of priority agricultural inputs -cassava cuttings (bags)	392,000	270,800	9440	6410	1.08
Output: 14 Provision of priority agricultural inputs -cashew nut((seedlings)	255,060	127,116	44,730	23,406	0.70
Output: 14 Provision of priority agricultural inputs –mango(seedlings)	270,000	68,971	100,000	25,545	0.74
Output: 14 Provision of priority agricultural inputs -dairy cattles (no.)	88,200	58,800	36	24	0.24
TOTAL	36,286,438,392	35,154,681,832			
Programme Performance (Outputs)					93.27%
Outcome Indicator		Annual target	Achieved	Scores%	Remarks
Percentage (%) change in Volume of priority and strategic commodities produced in metric tons.		0.0123	0.0123	100	No. of farming households supplied with agricultural inputs
Percentage (%) change in Volume of priority and strategic commodities produced in metric tons.		0.0123	0.0123	100	
Programme Performance (Outcomes)				103	
Overall Programme Performance				96.6%	

Source: Field findings



3.8 National Animal Genetic Resources Centre and Data Bank

3.8.1 Introduction

The National Animal Genetic Resources Centre and Data Bank (NAGRC&DB) was established under the Animal Breeding Act, 2001 to conserve and ensure continuous supply of animal genetic resources and breeding materials in the country. The NAGRC&DB implements its mandate through 11 farms/ranches and satellite centres. The institution is implementing Project 1325: Strategic Intervention for Animal Genetic Improvement Project (SAGIP) during 2016 to 2020 with the purpose of increasing livestock productivity, through sustainable utilisation of animal genetic resources and strengthening institutional capacity.

The approved budget for NAGRC&DB for FY 2019/20 was Ug shs 63.242bn, of which Ug shs 61.87bn (98%) was released and all spent (100%) by 30th June 2020. This was very good release and expenditure performance. The selected ranches and stock farms that were monitored are presented in Annex 1.

Breeding and Genetic Development

Performance

The overall performance of the Breeding and Genetic Development Programme is presented in table 3.17. Detailed performance of the monitored ranches and stock farms are presented below.

3.8.2 Aswa Ranch

Located in Burlobo Village, Burlobo Parish, Angagura Sub-county in Pader District, Aswa Ranch is mandated to breed and conserve Ankole, Boran and Zebu cattle. By 30th June 2020, in the apiary inputs were delivered in October 2019. Synchronisation and artificial insemination of animals in Kitgum, Lamwo, Agago, Pader, Omoro, and Nwoya districts was completed. Bore hole drilling was complete and functional. The fund for renovation of the administration block was re-allocated to construct the goat shade house and it was at 100%, though delivery of goats from the headquarters was pending.



Goat house established at Aswa Ranch in Pader District

A modest increase (183) in the animal herd was realized from 2,093 cattle on 1st July 2019 to 2,494 cattle on 30th June 2020. The growth of animal herds and the breeding programme was negatively affected by lack of: paddocking and fencing, clear physical land boundaries and land titles, tractors; and inadequate good quality pasture, understaffing and long distances to water sources.

Key challenges: i) Land encroachment due to poor surveying and demarcation of ranch land. For example, 10 square miles has been encroached on by Banuti Ranchers since 2016; some senior

Government officers and politicians and private investors were illegally occupying the ranch land, ii) inadequate staff especially herdsmen and field assistants, iii) inadequate staff accommodation, iv) inadequate imprest to address emergencies affecting the animals, v) delayed delivery of goats to the ranch due to COVID-19 lockdown restrictions.



3.8.3 Njeru Stock Farm



A water pump house constructed at Njeru Stock Farm in Buikwe District

The farm is located in Kiryowa Village, Bukaya Parish, Njeru Town Council in Buikwe District and mainly focuses on dairy development. A total of 400 acres of bush were cleared and 600 farmers trained in modern farming practice and maintenance of farm equipment. The water reticulation system was constructed and new water pipes were installed.

Poor performance was noted at Njeru Stock Farm where cattle herds grew from 258 to 260 animals (+2 net), the goat herd reduced from 98 to 97 animals (-1 net), and the pigs herd grew from 72 to 87 animals (+15) during the same period. This trend could not be fully explained given that the farm had 82 cows and 31 female goats in production stage, a proper census of animals on this station should be conducted.

Performance of the breeding programme was constrained by inadequate pasture and land for paddocking due to the reported land grabbing by a senior public figure who illegally claimed 300 acres of the farm land. Other farmers illegally grazed their animals on the stock farm due to lack of fencing and land demarcation. Most access roads on the farm were blocked by the land grabbers which constrained animal breeding. The farm lacked basic infrastructure including toilets and staff quarters.

3.8.4 Rubona Stock Farm

Rubona Stock Farm is located in Buhuna Village, Buhuna Parish, Rubona Town Council in Bunyangabo District. The farm registered a small growth (16) in cattle herds from 496 animals on 1st July 2019 to 512 animals on 30th June 2020 and negative growth (-16) for the goat herds from 191 to 175 animals during the same period. Key challenges to the breeding programme included: poor animal nutrition due to lack of funds to do bush clearing and planting good quality pastures; understaffing and inadequate staff accommodation.

3.8.5 Ruhengere Field Station

The station is located in Kayonza Village, Kayonza Parish, Kikatsi Sub-county in Kiruhura District. The cattle herd grew by a net of 312 animals from 3,572 animals on 1st July 2019 to 3,884 animals on 30th June 2020. There were significant cattle births (746 animals) during the period; however, there were also large animal sales (232) during the period, the goat herd increased significantly from 1,590 to 1,786 animals, a net increase of 196 animals. A high level of goat mortality (441) was noted due to inadequate housing, poor quality pastures and high prevalence of diseases.

By 30th June 2020, 200 acres of chloris garden established: works for the Artificial Inseminators Hostel was at finishes level; three night padocks were established. A key challenge was land encroachment and parcelling of ranch land to other users: out of the 21 square miles on the ranch, 10 square miles were allocated to an army barracks; another 2 square miles were reported as occupied by Mr. Rutahaigwa and the matter was in courts of law; challenge of suspected PPR and CCPP in goats which has claimed lives of very many goats; inadequate pasture due to thickets and pasture weeds for example Lantana camara and Cymbopogon spp.



3.8.6 Sanga Field Station

Located in Sanga Village, Sanga Parish, Sanga Town Council in Kiruhura District, the station focuses on upgrading Brahman crosses and conservation of Kigezi and Mubende goats. The station realised a low growth (8) in cattle herds from 361 animals on 1st July 2019 to 369 animals on 30th June 2020. The goats herd reduced by three animals from 685 animals to 688 animals within the same period. The high goat mortality was due to inadequate housing leading to overcrowding, for example 1 goat shed housed over 500 goats yet the maximum capacity is 200 in a shed. The station does not have land where to construct another unit for goats.

By 30th June 2020, synchronisation and artificial insemination of 120 animals in surrounding communities and fencing of 1 square mile was done. The rest of the land was not fenced because it was taken by an encroacher. The breeding performance of the cattle herd was lower than expected due to lack of funding for community breeding, predominance of poor-quality heifers and inadequate pastures due to land encroachment. About one square mile out of the 2.5 square miles available on the station was encroached upon by a one Captain Bashaiza. The land encroachment reduced access to farm infrastructure as one dip tank and two valley dams were enclosed within the encroached land. The land case has remained unconcluded for many years in courts of law. This challenge is exacerbated by the lack of clear demarcation of boundaries on the farm and absence/no access to a land title; the farm lack tractor so they hire to plough and harvest which is expensive and leads to less ploughing/ harvesting.

Overall Performance of the Breeding and Genetic Development Programme

The overall performance of the Breeding and Genetic Development Programme by 30th June 2019 was rated good at 87.9% (table 3.17). Key infrastructure such as office and housing for staff, farm roads, cattle crushes, paddocks and boreholes were developed: forage was established; and animal treatment continued at the National Animal Genetic Resource Centre and Data Bank (NAGRC&DB) stations and ranches.

Table 3.17: Performance of the Breeding and Genetic Development Programme by 30th June 2020

Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Qty	Physical performance Score (%)
Breeding & multiplication of meat goats (number)	350,000,000	328,954,000	2000.00	2899.00	0.55
Breeding & multiplication of pigs (number)	560,000,000	546,860,000	2000.00	1813.00	0.82
Dairy breeding, promotion of Dairy breeds associations and Dairy breeder societies (number)	123,619,250	123,619,250	6.00	5.00	0.16
Monitoring and evaluation (no of visits)	173,693,286	139,723,795	4.00	2.00	0.17
Production and sale of founder brood stock of fisheries resources (number)	34,000,000	26,554,000	3.00	2.00	0.05
Conservation and utilization of indigenous Animal Genetic resources.(no. of breed)	549,982,319	549,292,031	1.00	1.00	0.87
Development and maintenance of a National Livestock Registry and National Data Bank(number)	725,000,000	721,715,000	2.00	2.00	1.15
Establishment & maintenance of inter-agency and public private partnership (PPP) linkages (number)	35,000,000	26,250,000	4.00	4.00	0.06



Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Qty	Physical performance Score (%)
Evaluation and multiplication of improved pasture and fodder germplasm(no. of acreage)	1,470,000,000	1,440,600,000	1200.00	1226.00	2.32
Government Buildings and Administrative Infrastructure(number)	16,521,791,773	16,607,580,312	39.00	39.00	25.99
Production, procurement and sale of liquid nitrogen and associated equipment (Litres of liquid)	2,803,753,300	2,553,437,016	100000.00	57429.00	2.80
Promotion of beef cattle breeding(number)	18,750,000	18,750,000	3500.00	3196.00	0.03
Training, refreshing and facilitating AI and MOET technicians (number)	1,820,000,000	1,749,570,000	500.00	286.00	1.71
Roads, Streets and Highways (km)	250,000,000	250,000,000	10.00	10.00	0.40
Acquisition of Other Capital Assets (number)	12,770,000,000	12,770,000,000	35785.00	45100.00	20.19
Financial management, management accounting & financial Accounting (number)	150,000,000	103,650,000	1.00	1.00	0.24
Human Resource management & development.(no. of staff trained)	5,141,542,595	5,131,426,056	10.00	10.00	8.13
Industrial production of animal feeds (metric tones)	950,000,000	939,050,000	600.00	1150.00	1.50
Multiplication of pure Dairy animals & appropriate crosses (number)	200,000,000	166,200,000	2000.00	2595.00	0.32
Production and distribution of chicks (number)	2,055,550,933	1,882,894,474	2000000.00	293362.00	0.52
Production, procurement and sale of semen, eggs, ova, embryos and their associated equipment (doses of semen)	4,534,453,296	4,019,307,920	108000.00	70954.00	5.31
Providing breeding-training to farmers and other stakeholders along the ARTs value chain (number)	3,075,042,757	2,940,730,176	100000.00	58973.00	3.00
Purchase of Specialized Machinery & Equipment (number)	8,120,000,000	8,120,000,000	115.00	115.00	12.84
Strengthening and maintenance of dairy & beef bull, billy & boar studs (number)	610,000,000	599,050,000	26.00	26.00	0.96
Strengthening and maintenance of laboratories (number)	200,000,000	121,381,555	3.00	3.00	0.32
Programme Performance (Outputs)	63,242,179,509	61,876,595,585			90.40%
Outcome Indicator			Annual Target	Achieved	Score (%)
Percentage change in the utilisation of improved germplasm.			0.15	0.125	83
Programme Performance (Outcomes)					83
Overall Programme Performance					87.9

Source: Field findings



Overall NAGRC&DB Performance

Breeding and genetic development continued at the NAGRC&DB stations involving conservation and multiplication of beef and dairy cattle, goats, pigs and poultry breeds. Performance was constrained by: loss of animals due to death, donations and theft. A total of 30 animals died on Aswa Ranch; 7 cows and 20 goats were donated, and 26 goats were lost/stolen on Ruhengyere Field Station. Death was associated with old age as a result of delayed disposal of animals, animal infertility, lack of water and pastures during the dry season, suffocation of calves in mud during the rain seasons, and the high prevalence of diseases.

Due to COVID-19 lockdown restrictions, construction of the NAGRC&DB headquarters stalled, repair of the liquid nitrogen plant and installation of two new procured liquid nitrogen plants could not be done as it required travel of manufacturers from the UK. The hatcheries at the Livestock Experimental Station and Lusenke and Kasolwe stock farms were not functional due to lack of storage rooms. Transportation of eggs on bad roads to Entebbe for hatching led to loss of viability/hatchability of eggs by an average of 60%.

Challenges

- i) Lack of a governing board by February 2020 delayed renewal of expired contracts for 22 key staff (including Farm Managers, Estates Manager, Heads of Human Resource, Audit and Procurement), staff infighting and dissatisfaction led to stalled implementation and supervision of planned activities.
- ii) Land encroachment in Aswa Ranch, Sanga Field Station, Njeru Stock Farm and Ruhengere Field Station by Government/public officials due to lack of demarcation of boundaries, absence of land titles, and parcelling out of land to individuals, private investors and other entities by Government.
- iii) Slow growth in the animal herds due to several factors: a) increased animal death due to weather related catastrophes, b) shortage of pasture due to land grabbing and encroachment, c) low staffing levels to carry out community breeding, d) loss of animals due to lack of a governing body to authorise disposal of old, blind, lame or non-productive animals, e) donation/use of animals for festive seasons and public events.
- iv) Inadequate livestock handling structures at the farms and ranches highly affect the breeding activities which lead to low levels of performance.
- v) Outbreak of diseases such as Contagious CCPP, PPR, FMD and enterotoxaemia, especially in the ranches of Ruhengyere, Sanga, Nshaara and Rubona stock farm. Tick resistance and tick-borne diseases at NAGRC&DB centre farms and in the animal industry at large.
- vi) The COVID-19 pandemic and subsequent national lockdown slowed implementation processes.

Recommendations

- i) The Uganda Land Commission, MAAIF and agencies should expedite surveying of all NAGRC&DB lands, demarcate boundaries and ensure that they are all titled. Land cases of encroachment should be followed up in courts of law, concluded and the illegal encroachers evicted.
- ii) The Office of the Auditor General (OAG) should cause a census of all animal herds on NAGRC&DB stations and establish the causes of high losses of animals.
- iii) The NAGRC&DB should reduce/eliminate giving away animals for other reasons other than for breeding purposes.



- iv) The NAGRC&DB should fast track disposal of unproductive old animals and replace them with good quality breeds.
- v) The NAGRC&DB should decentralise funding to provide higher disbursements to the stations and ranches for emergencies and operational expenses.

3.9 National Agricultural Research Organisation

3.9.1 Introduction

Established by an Act of Parliament in 2005, the National Agricultural Research Organisation (NARO) aims “*To generate and disseminate appropriate, safe and cost effective agricultural technologies*”. The NARO has one programme 51 Agricultural Research with 20 sub-programmes namely: 01 Headquarters; Project 0382 Support for NARO; 07 National Crops Resources Research Institute (NaCRRI); 08 National Fisheries Resources Research Institute (NaFIRRI); 09 National Forestry Resources Research Institute (NaFORRI); 10 National Livestock Resources Research Institute; and 11 National Semi Arid Resources Research Institute (NaSARRI).

Other sub-programmes are: 12 National Laboratories Research; 13 Abi Zonal Agricultural Research and Development Institutes (ZARDI); 14 Bulindi ZARDI; 15 Kachwekano ZARDI; 16 Mukono ZARDI; 17 Ngetta ZARDI; 18 Nabuin ZARDI; 19 Mbarara ZARDI; 20 Buginyanya ZARDI; 21 Rwebitaba ZARDI; 26 NARO Internal Audit; and 27 National Coffee Research Institute (NaCORI).

The approved budget for NARO for FY2019/20 was Ug shs 79.661bn, of which Ug shs 57.103bn (71.68%) was released and fully spent by 30th June 2020. This was a good release and expenditure performance. Whereas the release was very good (91.98%) for the recurrent budget, it was poor for the development budget (48.82%).

Agricultural Research Programme

By 30th June 2020, research to generate technologies and improved agronomic practices was undertaken at the National Agricultural Research Organisation (NARO) Zonal Agricultural Research Development Institutes (ZARDIs), Development Institutes and off farm. The detailed performance of selected NARO institutions is presented below.

3.9.2 Abi ZARDI

Located in Obopi Village, Ewadri Parish, Madibe Sub-county in Arua District, the Abi ZARDI undertook research and technology generation on soil conservation methods and various crop and livestock commodities. Four improved varieties (Narocas 1, Nase 19, Nase 14 and Nase 3) and seven land races were submitted for nutritive quality profiling. Cassava value chains were identified and key information generated.

With support of non-state partners, five acres of cassava were under irrigation for experimentation. The elite dairy herd and elite Mubende goat herd were maintained on station. Adaptive trials for grafted mango, sorghum, maize and bean varieties and shrubs were undertaken. The key challenge was partial implementation of projects due to a) inadequate staff as some had left for other jobs while five personnel were away on PhD training, b) dilapidated vehicles and inadequate car maintenance funds, c) COVID-19 pandemic that affected implementation of field work



3.9.2 Bulindi ZARDI

Bulindi ZARDI is located in Bulindi Village, Bulindi Parish, Bulindi Sub-county in Hoima District. Adaptive trials were undertaken on developing fish productivity technologies and silage making. A total of 5,500 grafted mango and citrus seedlings, 2,250 coffee seedlings and 500 banana suckers were generated for farmer access. A total of 3,500 cassava bags were produced. Seventy-five farmers were trained on climate change, global warming and climate smart agriculture from Kyabigambire sub-county; at least 3,720 farmers were skilled in improved agronomic, post-harvest and marketing practices during the Jinja, Bulindi Farm Clinic and World Food Day shows.

Twelve model farms were established as community nodes for climate smart-agricultural practices within the Hoima learning site. Five acres were established and maintained on-station for beans, maize, rice, groundnuts, bananas, coffee, climate smart agriculture and livestock forages. A total of 1,381 students and 172 farmers accessed information on good farming practices and improved technologies through trainings and station visits.

3.9.3 Headquarters and Support for NARO

The Headquarters sub-programme, also referred to as NARO Secretariat (NAROSEC) is located in Entebbe Municipality, Wakiso District. NARO's staff were registered with different professional bodies to enable them perform their functions. Procurements comprised of three categories namely; goods and non-consultancy services; consultancy services and civil works; as well as micro procurements which were done partially due to effects of underfunding and therefore some contracts were not signed.

The research infrastructure improvement for the FY2019/20 focused mainly at Rwebitaba ZARDI, NaSARRI, NaLIRRI and Nabuin ZARDI. Infrastructure development projects included renovations and new constructions of which most of them were completed. A total of 34 and 54 NARO staff completed their PhD and Masters degrees. In addition, NARO enhanced skills and competencies of several staff in various relevant fields.

3.9.4 Mbarara ZARDI

Mbarara ZARDI is located in Mbarara Municipality in Mbarara District. On station and on-farm experiments on the interaction between agro-forestry, bean production and aphid effects were undertaken. One research protocol on improving banana productivity through innovative soil fertility and moisture management and control of diseases was produced. Brood stock of catfish were obtained and conditioned in concrete tanks at NaFIRRI and Kajjansi Station.

Research was initiated on enhancing the quality of ghee to support the cottage industry in the region. There was increased availability, accessibility and multiplication of improved planting materials for fruits (5,000 seedlings), cassava (15 acres of planting materials), coffee (3,000 seedlings) and banana (one and a half acres) were undertaken throughout the year for access by stakeholders. One banana juice extraction method for enhancing banana juice processing cottage industries was developed.

3.9.5 National Coffee Research Institute

The National Coffee Research Institute (NaCORI) is located in Kituza Village, Ssaayi Parish, Ntenjeru Sub-county in Mukono District. Research was undertaken with support from the Uganda Coffee Development Authority (UCDA), to develop high yielding and disease resistant Robusta coffee and cocoa varieties and associated agronomic practices that could enhance performance. Selections of Coffee Wilt Disease Resistant Robusta hybrid clones was undertaken on station and on-farm in selected districts. High yielding, disease and pest tolerant clones were experimented. Coffee planting materials were produced and disseminated to farmers.



Coffee value addition and climate smart agriculture experiments were undertaken. A second prototype (rotating cylindrical cocoa incubator) with potential to increase fermentation to 95% while reducing fermentation time by 2 days was designed. Coffee research was constrained by inadequate and dilapidated research infrastructure, low staffing level, delayed receipt of funds and incompetent contractors that delivered shoddy work that had to be re-done.

3.9.6 National Forestry Resources Research Institute



NARO CAST STOVE under development at NAFORRI in Mukono District

The National Forestry Resources Research Institute (NaFORRI) is located in Namirembe Village, Kiyunga Parish, Kyampisa Sub-county in Mukono District. By 30th June 2020, NaFORRI had produced research products for forest conservation and management, agroforestry and tree improvement. Forest products and services that could be commercialised through production of furniture, energy saving cooking stoves, recyclable paper and bricket making where at various stages of development.

Pharmaceutical product development and methods to control tree pests and diseases were under research. Improved cook stoves (NARO CAST STOVES) that were energy efficient were under development to address gender problems faced in households. Progress in implementation was slowed by COVID-19 restrictions that led to fewer staff being present to undertake research at the station. Some buildings at the Institute were under revovation.

3.9.7 National Crop Resources Research Institute



Labour saving bean thresher under development at NaCRRI in Wakiso District

The National Crop Resources Research Institute (NaCRRI) is located in Namulonge Village, Busukuma Sub-County, Nansana Municipality in Wakiso District. The Institute generated improved crop technologies including the iron rich beans, grafted tomatoes, cassava, orange fleshed sweet potatoes, maize, rice, horticulture, oil palm and labour saving technologies (bean thresher). The nutrition labarotary was equipped with additional modern equipment for testing the quality of food.



3.9.8 National Livestock Resources Research Institute

The National Livestock Resources Research Institute (NALIRRI) is located in Namulonge Village, Sukuma Sub-county, Nansana Municipality in Wakiso District. In FY2019/20 livestock research in NARO focused on vaccine development, forage seed and feeds production, maintenance of elite livestock herds and relocation and operationalisation of Nakyesesa and Maruzi campuses. They successfully extracted and characterised extracts of native plants with desired health benefits such as the NARO yoghurt.

Infrastructure developed and under operation included the dairy waste management facility that enables processing of dairy manure into compressed and packaged biogas, bio-electricity, solid fertiliser, liquid fertiliser, bio-pesticide and liquid soap. The others included: milk quality control platform and production storage that almost complete; land intensive calf-barns, vaccine and waste management facilities that were completed; and construction of the expendable calf groupings and Isolation calf pens are on-going,



Land intensive calf barn technology for urban areas that was under development (left) and yogurt processing line at NALIRRI in Namulonge, Wakiso District

3.9.9 National Semi-Arid Resources Research Institute

The National Semi-Arid Resources Research Institute (NASRRI) is located in Iglo Village, Iglo Parish, Serere Town Council in Serere District. Development of disease and drought resistant cotton varieties was ongoing. Research continued on the 26 advanced cotton lines onstation and off station in Lira, Kasese, Nebbi, Adjumani and Tororo districts. A tractor, ox-plough, vehicles and generator were procured and in use. Evaluation of conservation tillage and fertiliser applications on sesame, groundnuts and sunflower in the Teso, Karamonja, Bunyoro, Lango and Acholi regions continued. Screen houses were completed and were functional, mechanical workshop awaited furnishing with equipment. Rehabilitation and renovation of the administration blocks was also completed.



Screen nursery house for drought resistant crops (left) and completed Mechanical workshop awaiting furnishing (right) at NaSSARI in Serere District



The key challenges were: COVID-19 pandemic restrictions to staff movement, high staff attribution/inadequate staffing, lack of staff accommodation and high prevalence of cotton pests and diseases which led to reduced programme performance

3.9.10 Rwebitaba ZARDI

Rwebitaba ZARDI serves the districts of Kyegegwa, Kyenjojo, Kabarole, Kamwenge, Kasese, Bundibugyo and Ntoroko. Research is undertaken at two stations: Rwebitaba Tea Research Centre in Fort Portal, Kyenjojo District and Kyembogo Station in Kyembogo Village, Kabarole District. Twenty clones of speciality tea were maintained in the gardens.

A total of 140 tea accessions were analysed and characterised using eight biochemical markers that included polyphenols, catechins flavonoids, fermentation rate, crude fiber, caffeine, colour, and brightness. Based on high fermentation rate and polyphenol content, 14 tea clones were found superior for black tea, and thus potential candidates for commercialization. Further evaluation of these clones for agronomic and resistance traits, was on-going. Most of the planned outputs were not delivered due to very low release of funds and COVID-19 pandemic that restrained most of their field activities.

Construction of the administration block was completed and awaiting handover, while the laboratory and conference facilities are near completion.

Overall performance of the Agricultural Research Programme

The overall performance of the Agricultural Research Programme in FY 2019/20 was very good (85.99%) as shown in table 3.18. Most technology generation and infrastructure development was completed at all the NARO institutions. Performance was constrained by inadequate staffing due to turn overs, vehicles, slow approval of scope variations for infrastructure development, lengthy procurement procedures, slow disbursement of funds from Headquarters, climate related constraints and COVID-19 pandemic that constrained most planned research activities.

Table 3.18: Performance of the Agricultural Research Programme by 30th June 2020

Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)
Furniture and ICT equipment procured (lots)	1,741,914,000	983,619,203	28.0	18.0	9.93
Farming machinery and equipment procured (lots)	1,550,000,000	1,117,792,119	3.0	1.0	4.09
Supportive recurrent items procured (lots)	2,376,235,994	1,744,566,726	18.0	15.0	13.55
Consultancy services procured (lots)	1,885,000,000	1,225,000,000	6.0	3.0	8.27
Civil works procured and completed (lots)	5,021,845,382	1,039,322,190	16.0	7.0	28.64
Vehicles procured (number)	1,234,000,000	1,054,625,889	6.0	2.0	2.74
Cassava research undertaken and value chains promoted (number of activities)	139,650,000	64,239,000	11.0	5.0	0.79
Elite dairy herd and Mubende goat herd maintained (quarters)	7,000,000	4,267,000	4.0	2.0	0.03
Apiary technologies developed and promoted (number of activities)	46,909,000	20,855,000	7.0	4.6	0.27



Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)
Fish technologies developed and promoted (number of activities)	1,074,458,000	237,552,000	17.0	7.0	6.13
Commercialisation of goat value chains assessed (number of activities)	873,466,000	385,596,000	28.0	17.0	4.98
Crop technologies, agro-forestry and climate smart agriculture options researched (number of activities)	122,600,000	56,709,000	8.0	3.5	0.66
Adaptation experiments of bean, peas, sorghum, sunflower, groundnuts and banana production systems undertaken (number of activities)	301,604,000	153,209,000	21.0	11.0	1.72
Tea production and productivity technologies generated (number of activities)	60,984,000	18,117,000	3.0	1.0	0.35
Potato technologies generated (number of activities)	18,000,000	13,742,000	5.0	2.0	0.05
Apple evaluation trials conducted (number of activities)	54,900,000	45,100,000	4.0	3.2	0.30
Animal resources technologies developed and promoted (number of activities)	41,900,000	20,710,000	7.0	3.4	0.23
Coffee variety improvement experiments implemented (number of activities)	136,333,000	55,446,000	62.0	13.0	0.40
Coffee plant health management research undertaken (number of activities)	221,434,000	74,786,000	14.0	6.6	1.26
Cotton varieties developed (number of activities)	114,083,000	114,083,000	2.0	2.0	0.65
Office administration (No. of outputs)	514,507,000	284,946,000	58.0	41.0	2.93
Programme Performance (Outputs)	17,536,823,376	8,714,283,127			87.98%
Outcome Indicator			Annual Target	Achieved	Score (%)
Percentage increase in yields of priority and strategic commodities			0.27	0.226	84
Programme Performance (Outcomes)					84
Overall Programme Performance					85.99

Source: Field findings

Challenges

- i) Most of NARO's budget is under support to NARO (GoU Development) and mainly caters for capital items. Expenditures on core technology generation and dissemination and maintenance of infrastructure are categorised as consumptive expenditure and restricted to about 20% of the total budget
- ii) Most operations were closed for 12 weeks following the COVID-19 outbreak from March 2020. This effected implementation of planned outputs.



- iii) High staff attrition due to low remuneration whereby programmes are managed by technicians.
- iv) Re-allocation of NARO land to investors leaving less for carrying out meaningful research and leading to distortion in experiment results
- v) Loss of experimental results and partial non-conclusive research due to: a) excessive rains, pests and diseases that led to on average 60% losses, b) delayed disbursement of funds to the Institutes, c) lack of/dilapidated vehicles to monitor off station experimental sites and key infrastructures like laboratories and unpredictable weather frustrates research work.

Recommendations

- i) The MFPED should provide a unique code to NARO for research activities especially dissemination.
- ii) The NARO Secretariat should provide irrigation facilities to NARO stations for smooth research work.
- iii) The UNBS should enhance staff capacity in assessing and verifying agricultural machinery for compliance to national standards.
- iv) The Ministry of Public Service (MoPS), MFPED, and NARO should review the staff conditions of service at NARO and find options for remunerating staff to reduce staff attrition.
- v) The NARO should research, adapt and promote climate smart technologies in the country.



CHAPTER 4: CONCLUSION AND RECOMMENDATIONS

4.1 Conclusion

The approved budget for the Agriculture Sector for FY 2019/20 excluding arrears and external financing was Ug shs 720.251bn, of which Ug shs 648.682bn (90.06%) was released and Ug shs 640.275bn (98.70%) spent by 30th June 2020.

The overall performance of the sector in FY 2019/20 was good rated at 85.89%. All the votes registered good performance despite the COVID-19 pandemic as most activities were fully implemented by end of Q3.

Farmers received monies from the ACF and undertook several farm investments such as: purchase and installation of grain and foods processing machines, rehabilitation and expansion of ranches, fish ponds, banana and sugar cane plantations, grain trade, procurement of livestock, establishment of farm infrastructure and working capital. Assorted planting and stocking materials as well as mechanisation and value addition equipment were distributed to farmers through the Agricultural Advisory Services Programme, Cotton Development Programme, Dairy Development Programme and several MAAIF sub-programmes.

The National Agricultural Research Organization (NARO) Zonal Agricultural Research Development Institutes (ZARDIs) and Development Institutes generated several high yielding, labour saving, drought and pest and disease tolerant technologies and improved practices. Phase two works were completed and the cotton seed dressing plant in Pader District was in operation by 30th June 2020. The completed certified works were: bale shed; front office block and weighbridge; raw seed cotton and unprocessed cotton seed stores; cyclone block and toilet block.

Key infrastructure such as office and housing for staff, farm roads, cattle crushes, paddocks and boreholes were developed; forage was established; and animal treatment continued at the National Animal Genetic Resource Centre and Data Bank (NAGRC&DB) stations and ranches. Breeding and conservation of animal breeds continued with fair performance on some ranches, and poor performance on other stations that exhibited low growth in animal herds sometimes for no justifiable reasons.

The Dairy Development Authority trained 4,441 dairy stakeholders along the value chain; 441 milk handling equipment and utensils were procured and distributed; 3,246 dairy premises/equipment/consignments were inspected; 5,015 milk and milk product samples were analysed; and pasture seeds were distributed in the milk producing regions. Rehabilitation of the National Dairy Analytical Laboratory (NDAL) premises commenced in preparation for accreditation of trade exports.

Good performance was registered in delivery of key outputs including provision of extension services to farmers, establishment of demonstration sites, pest and disease surveillance and control, and establishment of agricultural infrastructure. There was increased adoption of improved farming practices by farmers countrywide due to improved access to extension services arising from the deepening of the single spine extension system in the LGs.



Lower outputs than planned were however delivered due to the following key challenges.

- Lower sector outputs, interruption of programme implementation and supervision, and increased cost of operations, input and labour scarcity and staff shortage due to the COVID-19 restrictions and suppression of budgets
- Low survival of crop based enterprises due to extreme climatic conditions and high prevalence of pests and diseases, and inadequate working capital.
- Distortion of budget allocations for FY 2019/20 due to carryover of purchases on credit incurred in FY 2018/19 and re-allocations to Atiak Sugarcane Project under the Agricultural Advisory Services Programme.
- Lack of a governing board at NAGRC&DB by February 2020 delayed renewal of expired contracts for 22 key staff (including Farm Managers, Estates Manager, Heads of Human Resource, Audit and Procurement), staff infighting and dissatisfaction led to stalled implementation and supervision of planned activities. This also led to high unexplained losses of animals.
- Land grabbing and encroachment by investors and public officers especially at NARO Institutes and NAGRC&DB farms.
- Non-compliance with PFM laws and regulations delayed approval and disbursement of funds by Accounting Officers.

4.2 Recommendations

- i) The Office of the Auditor General (OAG) should cause a census of all animal herds on NAGRC&DB stations and establish the causes of high losses of animals.
- ii) The Uganda Land Commission, MAAIF and agencies should ensure that all farm land in Government institutions is properly surveyed, demarcated and encroachers removed as well as concluding ongoing land related court cases.
- iii) The MFPED should enforce compliance to PFM laws and regulations by Accounting Officers.



REFERENCES

- BoU, 2020. Agricultural Credit Facility Progress Report June 30 2020. Bank of Uganda, Kampala.
- GoU, 2018. Memorandum of Agreement for the Agricultural Credit Facility. Ministry of Finance, Planning and Economic Development, May 2018 Kampala.
- GoU, 2015. Second National Development Plan 2015/16 – 2019/20 (NDPII). National Planning Authority, Kampala.
- IFAD and GoU, 2017. Final project design report. National Oil Palm Project (NOPP)
- MAAIF, MOH, MOES and MOLG, 2019. Uganda Multi-Sectoral Food Security and Nutrition Project (UMFSNP) Project Status Report September 2019.
- MAAIF, 2019. Ministerial Policy Statement for MAAIF for Financial Year 2019/20, Ministry of Agriculture, Animal Industry and Fisheries, Entebbe.
- MAAIF, 2019a. Uganda Multisectoral Food Security and Nutrition Project Progress Report 31st December 2019. Ministry of Agriculture, Animal Industry and Fisheries, Entebbe.
- MAAIF, 2016. National Agricultural Extension Policy. October 2016, Ministry of Agriculture, Animal Industry and Fisheries, Entebbe
- MFPED, 2019. Approved Estimates of Revenue and Expenditure (Recurrent and Development) FY 2019/20. Volume 1: Central Government. Ministry of Finance, Planning and Economic Development, Kampala.
- NAGRC&DB, 2017. NAGRC&DB Strategic and Investment Plan 2015/16 – 2019/20. National Animal Genetic Resources Centre and Data Bank, Entebbe.
- World Bank, 2014. Project Appraisal Document for the Uganda Multisectoral Food Security and Nutrition Project, December 31, 2014.



ANNEX

Annex 1: Agriculture Sector Programmes Monitored for FY 2019/20

Vote	Programme	Sampled sub-programmes	Sampled districts/ Institutions
008 MFPED	Agricultural Credit Facility	Agricultural credit facility projects	Bank of Uganda, Wakiso, Hoima, Soroti, Bushenyi, Mukono, Masindi, Luuka
152 NAADS	Agricultural Advisory Services	01 Headquarters	Nwoya, Kalangala Masaka, Omoro, Amuria, Katakwi, Bukedea, Mbale Amuru Packwach, Nebbi, Yumbe, Maracha, Arua, Jinja, Mayuge, Bugweri, Bugiri, Namayingo, Kiryandongo, Masindi, Kasese, Bushenyi, Iganga,
		0903 Government purchases	
142 NARO	Agricultural Research	01 Headquarters	NARO Secretariat, Arua, Mbarara, Serere, Hoima, Kabarole, Mukono
		0382 Support for NARO	
		11 National Semi and Resources Research Institute (NASRRI)	
		13 Abi ZARDI	
		14 Bulindi ZARDI	
		19 Mbarara ZARDI	
		21 Rwebitaba ZARDI	
		27 National Coffee Research Institute (NACORI)	
Vote 155 CDO	Cotton Development	01 Headquarters	CDO Headquarters, West Acholi and East Madi, West Nile, South Eastern/Busoga, Central, Mid-Western and Tororo/ Butaleja, Pader district
		1219 Cotton Production Improvement	
Vote 121 DDA	Dairy Development and Regulation	01 Headquarters	DDA Headquarters, Northern Region, Northern Eastern Region, Entebbe Dairy Training School, South Western region
		1268 Dairy Market Access and Value Addition	



Vote	Programme	Sampled sub-programmes	Sampled districts/ Institutions	
Vote 125 NAGRC	Breeding and Genetic Development	01 Headquarters	Aswa Ranch – Pader; Livestock Experimental Station (LES) – Wakiso; Lusenke Stock Farm – Kayunga; Kasolwe Stock Farm – Kamuli; Njeru Stock Farm – Buikwe; Sanga Field Station – Kiruhura; Ruhengyere Field station – Kiruhura; Rubona Field Station - Bunyangabo	
		02 Dairy Cattle		
		03 Beef cattle		
		04 Poultry		
		05 Small ruminants and non-ruminants		
		06 Pasture and feeds		
		08 National Animal Data Bank		
		09 Fish breeding and production		
		10 ARTs		
		1325 NAGRC Strategic Intervention for Animal Genetics Improvement Project		
Vote 010 MAAIF	01 Crop Resources programme	1316 Enhancing National Food Security Through Increased Rice Production in Eastern Uganda	MAAIF, Bugiri, Bugweri	
		1425 Multi-sectoral Food Safety and Nutrition Project	MAAIF, Arua, Yumbe, Maracha, Kiryandongo, Kyenjojo, Bushenyi, Pakwach, Kasese, Iganga, Nebbi	
		1508 National Oil Palm project	MAAIF	
	03 Directorate of Agricultural Extension and Skills Management	23 Department of Agricultural Extension and Skills Management	MAAIF	
		24 Department of Agricultural Investment and Enterprise Development		
	02 Directorate of Animal Resources	1324 Northern Uganda Farmers Livelihood Improvement Project	MAAIF, Amuria, Gulu, Omoro, Nwoya	
		1363 Regional Pastoral Livelihood Project	MAAIF, Amuria, Bukedea, Kapelebyong, Katakwi, Kumi	
	04 Fisheries Resources Programme	1365 Support to Sustainable Fisheries Development	MAAIF	
	500 LGs	District Production Services	0100 Production Department – Agricultural Extension Grant	Nwoya, Kalangala Masaka, Omoro, Amuria, Katakwi, Bukedea, Mbale Amuru Packwach, Nebbi, Yumbe, Maracha, Arua, Jinja, Mayuge, Bugweri, Bugiri, Namayingo, Kiryandongo, Masindi, Kasese, Bushenyi, Iganga,
			04 Production and Marketing	



Source: Author's Compilation

Annex 1: Agriculture Sector Programmes Monitored for FY 2019/20

Vote	Programme	Sampled sub-programmes	Sampled districts/ Institutions
152 NAADS	Agricultural Advisory Service	01 Headquarters	Nwoya, Kalangala Masaka, Omoro, Amuria, Katakwi, Bukedea, Mbale Amuru Packwach, Nebbi, Yumbe, Maracha, Arua, Jinja, Mayuge, Bugweri, Bugiri, Namayingo, Kiryandongo, Masindi, Kasese, Bushenyi, Iganga,
		0903 Government purchases	
Vote 010 MAAIF	03 Directorate of Agricultural Extension and Skills Management	23 Department of Agricultural Extension and Skills Management	MAAIF
		24 Department of Agricultural Investment and Enterprise Development	



Plot 2 -12 Apollo Kaggwa Road
P. O. Box 8147, Kampala - Uganda
www.finance.go.ug

MOFPED
#DoingMore